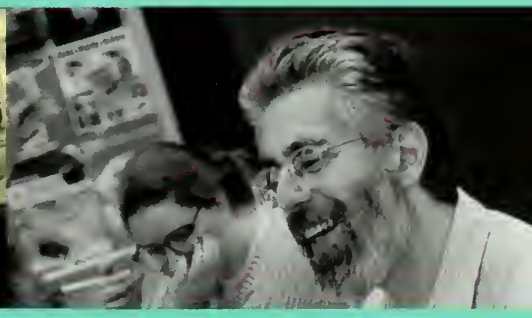
University of Massachusetts Boston

Bulletin

Graduate Studies 1995-1997



Graduate Studies Bulletin 1995-1997

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The purpose of this publication is to provide information about the University of Massachusetts Boston to persons who work and study at the University, to persons who may be interested in applying for admission, and to parents, teachers, counselors, and the general public. THIS PUBLICATION IS NEITHER A CONTRACT NOR AN OFFER TO MAKE A CONTRACT. While every effort has been made to ensure the accuracy of the information in this publication, the University reserves the right to make changes at any time with respect to course offerings, degree requirements, services provided, or any other subject addressed in this publication. The information in this publication is provided solely for the convenience of the reader, and the University expressly disclaims any liability which may otherwise be incurred.

The University of Massachusetts Boston is an affirmative action/equal opportunity institution and prohibits discrimination on the basis of race, color, sex, age, religion, national origin, sexual orientation, disability, or veteran status in its employment; in the recruitment, admission, and treatment of students; and in its policies and programs, as required by federal and state laws and regulations. All inquiries regarding Title IX of the Educational Amendments of 1972 and/or Section 504 of the Rehabilitation Act of 1973 may be directed to the Director of Affirmative Action, University of Massachusetts Boston, Harbor Campus, 100 Morrissey Boulevard, Boston, MA 02125, (617) 287-5180. Inquiries regarding the application of the nondiscrimination policy may also be directed to the Coordinator or the Assistant Secretary for Civil Rights, U.S. Department of Education.

The University of Massachusetts Boston is accredited by the New England Association of Schools and Colleges, Inc., a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering postgraduate instruction.

Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Association is not partial but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of the school or college. Individuals may also contact the Association:

Commission on Institutions of
Higher Education
New England Association of
Schools and Colleges
209 Burlington Road
Bedford, Massachusetts 01730-1433
617 271-0022

The University of Massachusetts Boston is a member of the Council of Graduate Schools of the United States and the Northeastern Association of Graduate Schools.

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Foreword

Foreword

The University

The University of Massachusetts Boston is a community of scholars that prides itself on academic excellence, diversity, and its commitment to serving students and the greater Boston community. UMass Boston was founded in 1964 to provide the opportunity for superior undergraduate and graduate education at moderate cost to the people of the Commonwealth and particularly of the greater Boston area. It's a lively place, where classes go on year round, and where studies in a wide range of disciplines are conducted by a truly distinguished faculty.

The University's urban setting allows it to offer a broad array of resources—educational, professional, and cultural. These resources, together with UMass Boston's active concern for individual academic development, offer students the opportunity for an excellent education.

Situated on a finger of land jutting into Dorchester Bay, the University is easily accessible by public or private transportation. A campus shuttlebus links the Harbor Campus with the JFK/UMass MBTA station. The campus consists of six buildings on approximately 100 acres of land surrounded on three sides by ever-changing seascapes. The John F Kennedy Library and the Massachusetts Archives and Commonwealth Museum adjoin the University.

UMass Boston, which has more than 13,000 students in its undergraduate, graduate, and continuing education programs, is the second largest campus in the University of Massachusetts system. With campuses at Amherst, Boston, Dartmouth, Lowell, and Worcester, the University of Massachusetts serves more than 58,000 students and is the largest university system in New England.

Graduate Study

At UMass Boston there are a variety of ways in which students can pursue graduate study. The following list indicates the pages of this publication on which information about the University's graduate offerings can be found.

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Office of Graduate Studies

Under the leadership of the dean of Graduate Studies, this office oversees all graduate work at the University. In collaboration with the University's Graduate Studies Committee, the Office of Graduate Studies exercises overall review and supervision of graduate programs, and provides guidance for the development of new programs, as well as for the maintenance of academic standards within existing programs. At UMass Boston, graduate education is supported cooperatively and in accordance with the highest national professional standards by the University's College of Arts and Sciences, Graduate College of Education, College of Management, College of Nursing, College of Public and Community Service, and John W McCormack Institute for Public Affairs.

Further Information on Graduate Study

The graduate programs of the University of Massachusetts Boston are described in detail in this publication. Publications giving information about graduate programs at the University's Amherst, Dartmouth, and Lowell campuses are available at each campus. Information about graduate programs in medicine and related fields may be found in the Medical School Catalog of the University of Massachusetts Worcester.

Academic Calendar, 1995-1997

Fall Semester, 1995

Labor Day (Holiday)	September 4	(Mon)
Classes Begin	September 5	(Tue)
Add/Drop Period Ends	September 12	(Tue)
Convocation Day	September 20	(Wed)
Columbus Day (Holiday)	October 9	(Mon)
Mid-semester	October 23	(Mon)
Course Withdrawal Deadline	November 5	(Sun)
Veterans Day (Celebrated)	November 10	(Fri)
Thanksgiving Recess	November 23-26	(Thu-Sun)
Classes Resume	November 27	(Mon)
Classes End	December 12	(Tue)
Study Period	December 13-14	(Wed-Thu)
Final Exam Period	December 15-21	(Fri-Thu)
Emergency Snow Day	December 22	(Fri)

Spring Semester, 1996

Classes Begin	January 29	(Mon)
Add/Drop Period Ends	February 2	(Fri)
Presidents Day (Holiday)	February 19	(Mon)
Spring Vacation	March 16-24	(Sat-Sun)
Classes Resume	March 25	(Mon)
Mid-semester	March 25	(Mon)
Course Withdrawal Deadline	April 7	(Sun)
Patriots Day (Celebrated)	April 15	(Mon)
Classes End	May 14	(Tue)
Study Period	May 15-19	(Wed-Sun)
Final Exam Period	May 20-24	(Mon-Fri)
Commencement	June 1	(Sat)

Fall Semester, 1996

Labor Day (Holiday)	September 2	(Mon)
Classes Begin	September 3	(Tue)
Add/Drop Period Ends	September 10	(Tue)
Convocation Day	September 18	(Wed)
Columbus Day (Holiday)	October 14	(Mon)
Mid-semester	October 21	(Mon)
Course Withdrawal Deadline	November 3	(Sun)
Veterans Day (Holiday)	November 11	(Mon)
Thanksgiving Recess	November 28-December 1	(Thu-Sun)
Classes Resume	December 2	(Mon)
Classes End	December 11	(Wed)
Study Period	December 12-15	(Thu-Sun)
Final Exam Period	December 16-20	(Mon-Fri)
Emergency Snow Day	December 23	(Mon)

Spring Semester, 1997

Classes Begin	January 27	(Mon)
Add/Drop Period Ends	January 31	(Fri)
Presidents Day (Holiday)	February 17	(Mon)
Spring Vacation	March 15-23	(Sat-Sun)
Classes Resume	March 24	(Mon)
Mid-semester	March 24	(Mon)
Course Withdrawal Deadline	April 6	(Sun)
Patriots Day (Celebrated)	April 21	(Mon)
Classes End	May 14	(Wed)
Study Period	May 15-18	(Thu-Sun)
Final Exam Period	May 19-23	(Mon-Fri)
Commencement	May 31	(Sat)

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Trustees of the University

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Michael T Foley
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Peter H Cressey, PhD
Chancellor

University of Massachusetts Lowell

William T Hogan, DSc
Chancellor

University of Massachusetts Worcester

Aaron Lazare, MD
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Admissions

Admissions

All persons who hold bachelor's degrees from institutions of recognized standing are eligible to apply for admission to graduate study at UMass Boston. Admission is granted only for the semester requested and cannot be guaranteed for a later date (see "Deferred Enrollment" on page 10 of this publication). An application form and instructions can be found at the back of this publication. Application materials, and information about application deadlines, can also be obtained from the Office of Graduate Admissions and Records, University of Massachusetts Boston, 100 Morrissey Boulevard, Boston, MA 02125-3393 (Fax: 617-287-6236; E-mail: bos.gadm@dpc.umassp.edu). Applications for admission, with supporting documents, should be sent to the Office of Graduate Admissions and Records. Note: each application must be accompanied by a non-refundable application fee ($20 for residents of Massachusetts, $35 for non-residents).

Admission to graduate study does not automatically indicate approval of candidacy for an advanced degree. Such candidates are subject to specific requirements defined by the individual graduate programs. Graduate program directors must approve all degree candidacies.

Students can participate in graduate study at UMass Boston as:

Degree-seeking (Matriculated) Students admitted to graduate programs and fully qualified to pursue studies toward graduate degrees; or as *Non-degree-seeking (Non-matriculated) Students* not admitted to graduate programs but allowed to enroll in graduate-level courses on a space-available basis. For more information, see "Graduate Non-degree-seeking Student Status" on page 11 of this publication.

General Admission Requirements

The requirements listed here apply to all UMass Boston graduate programs. Please refer to individual program descriptions in this publication for additional or more restrictive requirements that may apply to individual programs. Please refer to the International Applicants section on page 10 of this publication for information on special requirements for applicants from other countries.

1. Submission of the graduate admissions application form.
2. A minimum cumulative grade point average in undergraduate work of 2.75.
3. A bachelor's degree from a college or university of recognized standing.*

*Applicants must have either a four-year bachelor's degree from an accredited US college or university, or a degree which is in all respects equivalent.

4. Official transcripts of all previous work (graduate and undergraduate). An applicant should request the registrar of each college attended to send two copies of each transcript directly to the Office of Graduate Admissions and Records.
5. Three letters of recommendation from people who have worked closely with the applicant in an academic, professional, or community service setting. These letters should include specific information about the applicant's abilities and performance. Letters of recommendation should not be written by friends or family members of the applicant. If possible, at least one letter should be from a faculty member at an institution where the applicant has been enrolled who is familiar with the applicant's academic work. It is strongly suggested that the three letters of recommendation comment on differing aspects of the applicant's abilities and performance, and that they be current, directly addressing the applicant's present ability to do graduate work.
6. Submission of test scores, if required by the program to which the applicant is seeking admission.* Information about the tests and about the locations of test centers is available from:

   Educational Testing Service, Box 6000, Princeton, New Jersey, 08541-6000, for the Graduate Record Examination (GRE) (609 771-7670) (TTY 609-734-9362)

   Educational Testing Service, Box 6103, Princeton, New Jersey, 08541-6103, for the Graduate Management Aptitude Test (GMAT) (609 771-7243) (TTY 609-734-9362)

   Psychological Corporation, Controlled Testing Center, 555 Academic Court, San Antonio, Texas, 78204, for the Miller Analogies Test (MAT) (800 622-3231)

*In accordance with provisions of the General Laws of Massachusetts, Graduate Studies policy permits residents of Massachusetts who have been diagnosed as developmentally disabled (including those with specific language disabilities, such as dyslexia, but not including those whose sole disability is blindness) to request a waiver of the requirement to submit GRE, GMAT, or MAT scores. To qualify for a waiver, an applicant must submit documentation validating his or her disability. A graduate program may require an alternative mode of assessment (e.g., a writing sample) in lieu of the standardized test score. For further information, contact the Office of Graduate Studies.

The programs listed below *require* applicants to submit the appropriate test scores. See individual program sections for details.

Biology: GRE
Biotechnology and Biomedical Science: GRE (*general exam and one subject exam*)
Business Administration: GMAT
Chemistry: GRE *(required of applicants with degrees only from foreign universities)*
Clinical Psychology: GRE *(general exam and psychology subject exam)*
Computer Science, PhD: GRE*
Computer Science, MS: GRE*
Counselor Training: GRE *or* MAT*
Dispute Resolution, MA: GRE *or* MAT*
Education (MEd): GRE *or* MAT*
Environmental Sciences: GRE
Environmental Sciences/ Environmental Biology: GRE
Gerontology: GRE
Human Services: MAT*
Instructional Design: MAT*
Nursing: GRE
Nursing/Management: GMAT
Public Affairs: GRE *or* MAT
Public Policy: GRE
School Psychology: GRE *or* MAT*
Applied Sociology: GRE *or* MAT
Special Education: GRE *or* MAT*

The programs listed below recommend that applicants submit the appropriate test scores. See individual program sections for details.

American Studies: GRE
Chemistry: GRE
Clinical Psychology: MAT
Critical and Creative Thinking: (GRE or MAT)
Education (EdD): GRE *or* MAT
Educational Administration: GRE *or* MAT
English: GRE
History: GRE
Applied Physics: GRE

7. Acceptance by both the graduate admissions committee of the program for which application is made and the dean of Graduate Studies.
8. Acknowledgment of acceptance by the applicant. Acknowledgment should be sent to the Office of Graduate Admissions and Records. Failure to acknowledge acceptance before registration may result in deactivation of the application.

Please note: Individual programs may require interviews for applicants.

*Test score not required if applicant holds an advanced degree from a US university.

Admissions

Transfer Credit

Applicants who have completed graduate course work at other accredited institutions may transfer towards the completion of a graduate degree at UMass Boston up to the equivalent of 6 credits from courses in which the applicant received a grade of B or higher, provided these are courses that

- have not been used to fulfill requirements for another degree, and
- were earned no more than seven years before the student's matriculation at UMass Boston.

Transfer credit is subject to the final approval of the graduate program director and the dean of Graduate Studies.

Copies of Submitted Material

All materials submitted to the University of Massachusetts Boston become the property of the University. Because neither such materials nor photocopies of them can be returned to the applicant, all applicants—and enrolled students—should be certain to keep copies of all forms, documents, and correspondence they submit to the University. If questions about any of this material should arise, students will find it useful to have copies for reference.

Application Deadlines

Deadlines for application forms and for all required credentials are as follows:

Special Deadlines

- Bilingual Education Program: February 15 (for the fall semester); October 15 (for the spring semester)
- Clinical Psychology Program: January 2
- Education Program (EdD)
  - Higher Education Administration Track, March 1
  - Leadership in Urban Schools Track, March 15
- Educational Administration Program (MEd, CAGS): April 1
- ESL Studies Program: February 15 (for the fall semester); October 15 (for the spring semester)
- Environmental Sciences Program (including track in Environmental Biology): January 21 (for the fall semester); October 15 (for the spring semester)
- Gerontology Program: February 1
- Public Affairs Program: March 1
- Public Policy Program: February 1

General Deadlines

Except for the programs listed above, the following deadlines apply:

- For US residents: June 1 (for the fall semester) and November 1 (for the spring semester). Please note: Programs with a June 1 fall semester deadline (May 1 for international applicants) also have a priority deadline of March 1. Completed applications—including all required credentials and documents—received by March 1 will be given priority consideration, and applicants will be notified of a decision by the end of April.
- For international applicants: May 1 (for the fall semester) and October 1 (for the spring semester). For details, see the "Special Instructions" accompanying the application form at the back of this publication.

Please note: All application deadlines are subject to change, and individual programs in addition to those listed above may set their own deadlines and/or admit students only every other semester. The most current information about deadline dates and about individual program deadlines is available from the Graduate Admissions and Records Office (617 287-6401).

Deferred Enrollment

Admission is granted only for the semester requested by the applicant and cannot be guaranteed for a later semester. With the approval of the appropriate graduate program director, a newly-admitted applicant may defer his or her enrollment in courses for as much as a year. For further information about deferred enrollment, contact the Office of Graduate Admissions and Records. Please note: a $10 admission processing fee is charged for deferred enrollment.

Any newly-admitted applicant who cannot enroll by the beginning of the second semester after the semester for which admission was originally granted (excluding the summer session), and who remains interested in seeking a graduate degree at the University, must reapply, submitting a new application form and a new set of accompanying credentials.

Readmission

Graduate degree candidates must maintain continuous registration, either by enrolling for course, thesis, or dissertation credits; or by paying a program fee ($90.00 per semester). Any student who has failed to maintain continuous registration and who wishes to resume his or her pursuit of the degree must apply for readmission. For further information, see "Program Fee" on page 16 of this publication.

The applicant must complete a readmission application form and pay readmission and program fees before the application will be considered. Before the applicant can be readmitted, the application must be approved by the appropriate program director and the dean of Graduate Studies. The deadline for readmission applications is one month before the beginning of the semester for which application is being made. Any student wishing readmission should contact the Office of Graduate Admissions and Records for further information. Eligibility for readmission is limited to students who were in good standing at the time of their withdrawal.

Former Boston State College Students

Boston State College was consolidated with the University of Massachusetts Boston in January 1982. All former Boston State College students who now seek admission to UMass Boston must follow the standard application procedure, and must complete the full course of study for advanced degrees at the University of Massachusetts Boston. Please note: Applicants must indicate on the application form the academic programs in which they were enrolled and their dates of attendance. The Office of Graduate Admissions and Records will then obtain copies of Boston State College transcripts.

International Applicants

In addition to meeting the general requirements for admission, international applicants must also meet the following additional requirements:

1. Certain programs have special deadlines. Others follow the general deadlines for graduate studies programs. The completed application form, the $35 application fee, and all supporting materials must reach the University by the applicable special or general deadline listed in the "Application Deadlines" section above. The application fee must be submitted in US currency.
2. Official transcripts of the applicant's academic record, including courses and grades, with English translations validated by an official public translator, must be sent to the Office of Graduate Admissions and Records.
3. Evidence that the applicant has completed a university-level degree program must be submitted. Acceptable evidence includes copies of diplomas, certificates, and notifications of final examination results.

Admissions

4. Applicants from countries where English is not generally spoken are required to take the Test of English as a Foreign Language (TOEFL). A score of 550 or above is required. Information about the TOEFL may be obtained from the TOEFL Program, Box 899, Princeton, New Jersey, 08540, USA. This requirement may be waived if the applicant has attended an English-speaking college or university for a period of at least two academic years. The TOEFL may be also be required of permanent resident immigrants who have not attended an English-speaking educational institution.
5. A Declaration and Certification of Finances form must be completed, along with an affidavit of support from the student's sponsor and documentation from the sponsor's bank, based on an estimate of institutional costs and living expenses. The Office of Graduate Admissions and Records will send the form to applicants who do not already have one as soon as their applications are received. The form must be completed accurately, and must show that the total funds available to the student to cover his or her full period of study are at least equal to the total estimates of institutional costs and living expenses. Note: each international student must pay the non-resident tuition rate for his or her full period of study.

Below is an estimate of a single graduate international student's current (1995) annual expenses. Students should keep in mind that these cost estimates for living expenses are minimum estimates for a twelve-month period and that, depending on the individual, actual costs may be higher. Students must be prepared to pay their own expenses and should anticipate yearly increases in both tuition and living expenses. Transportation to and from the United States is not included in the estimates.

Tuition and Fees*	$10,908
Housing and Food	7,500
Books and Supplies	850
Medical Insurance	635
Personal Expenses (Miscellaneous)	2,720
Total	22,613

*Includes one-time pre-registration/orientation fee of $25, one-time recreation fee of $80, and one-time Registrar's Service Fee of $30. If you are married and your spouse will accompany you, add $4,500 to the total. A couple with children should add a minimum of $2000 for each child.

Note: University tuition, fees, and living expenses will increase annually. For a complete listing of fees, see "Tuition and Fees" on page 15 of this publication.

Admission to the University

When all admissions credentials have been received, and a decision to admit the applicant has been made, the University will send the applicant an official letter of admission accompanied by a Certificate of Eligibility (I-20 form). Admission is granted for a specific semester only. The I-20 form is valid for that semester only. If the applicant is unable to attend during the designated semester, the University should be notified immediately by mail, and the I-20 form should be returned to UMass Boston. The letter should be sent to the Office of Graduate Admissions and Records and should indicate when the applicant will be able to attend. A $10 admission processing fee is charged for deferred enrollment. Please note: A new I-20 form cannot be issued until the original form has been returned to the University. Updated financial documentation may also be required before a new I-20 form can be issued.

Under no circumstances should an applicant come to UMass Boston without having received the official letter of admission and the I-20 form. Applicants who come to the University without these official documents do so at their own risk. An applicant's presence on this campus will not expedite or influence the admission process.

Graduate Non-degree-seeking Student Status

Individuals holding bachelor's degrees may register for graduate courses as non-degree-seeking (non-matriculated) students, with the permission of the appropriate graduate program director, on a space-available basis. Many such students plan to matriculate eventually; others take courses simply for professional advancement or personal growth.

International students with student visas who are enrolled in other institutions may register as non-degree-seeking students with permission of the institution where they are enrolled.

Registration as a non-degree-seeking student does not imply admission to a graduate program as a degree-seeking student. Formal application for admission to graduate programs must be made through the Office of Graduate Admissions and Records.

No more than six credits earned as a graduate non-degree-seeking student can be applied towards a graduate degree at UMass Boston.

Non-degree-seeking students are charged tuition at the same rates as degree-seeking students and must also pay certain of the service fees. (See "Tuition, Fees, and Payments" on page 15 of this publication.)

New England Regional Student Program

The New England Regional Student Program enables New England residents to attend courses at certain public universities in other New England states at reduced tuition rates. Students may not participate in the program if their intended course of study is available at an institution in their home state. Applicants who wish to attend UMass Boston through the program should indicate their intentions on the graduate admissions application. For further information, interested individuals may contact the Office of Graduate Admissions and Records.

Summer Session

Selected graduate courses are offered during the summer through the Division of Continuing Education. The Summer Session operates on a fee-assisted, self-supporting basis: courses are offered when sufficient student demand is demonstrated. Information regarding course offerings, tuition, and fees may be found in the Summer Session Continuing Education Bulletin, available from the Division of Continuing Education Office (287-7900).

Tuition Waivers for Employees of the Commonwealth

Full-time employees of the Commonwealth of Massachusetts, with certain exceptions, are eligible for tuition remission at the University of Massachusetts Boston. To obtain tuition remission, an employee must submit a completed and signed "Certificate of Eligibility for Tuition Remission" form (available at the employee's personnel office) with his or her tuition bill each semester. Interested employees should contact their personnel office for further information.

Degree Requirements: Summary of all Graduate Programs

Program	Core Courses	Credits	Foreign Language	Practicum	Thesis	Comp. Exams	Oral Exams	Dissertation	Final Project
American Studies	R	30	N	N	N	N	N	N	R
Bilingual Education	R	30	R	R	O	R	N	N	O
Biology	R	30	N	N	O	N	R	N	N
Biotechnology & Biomedical Science	R	30	N	N	O	N	R	N	N
Business Administration*	R	33-54	N	N	N	N	N	N	N
Chemistry*	R	33	N	N	R	N	R	N	N
Clinical Psychology*	R	80-83	N	R	R	R	R	R	N
Computer Science (PhD)	R	63	N	N	N	R	R	R	N
Computer Science (MS)	R	30	N	N	O	N	N	N	N
Counselor Training	R	48	N	R	N	R	N	N	N
Critical & Creative Thinking (MA)	R	30	N	R	R	N	N	N	N
Critical & Creative Thinking (Graduate Certificate)	R	15	N	R	N	N	N	N	R
Dispute Resolution (MA)*	R	36	N	R	N	N	N	N	R
Dispute Resolution (Graduate Certificate)*	R	18	N	R	N	N	N	N	N
Education (EdD)	R	63-67	N	N	N	R	R	R	N
Education (MEd)*	R	33-36	N	R	N	R	N	N	N
Educational Administration	R	36	N	R	N	R	N	N	N
English	N	30	R	N	N	O	N	N	R
English as a Second Language Studies	R	30	R	R	O	R	N	N	N

* See below for more information. Key: R=Required O=Optional N=Not Required/Not Applicable

Business Administration
The MBA Program allows advanced standing within the program by waiving a portion of the core requirement. Consult the GPD for further information. In addition to the MBA degree, the program offers a joint MS/MBA degree in cooperation with the Graduate Program in Nursing.

Chemistry
Two credits toward the degree must be earned through participation in the seminar program.

Dispute Resolution
Graduates of the 18-credit Graduate Certificate Program who apply and are admitted to the MA Program must complete an additional 21 credits (five 3-credit courses and the final project) to earn the master's degree.

Clinical Psychology
Although students are not admitted into the program for a terminal master's degree, a master's degree is granted, usually sometime during the second year, after the completion of 48 credits of course work, a year of part-time practicum, and a master's research project which is equivalent to a master's-level thesis.

Additional credits are given for dissertation research and the predoctoral internship. Please see the program description in this publication for complete information.

Education (MEd)
Comprehensive Exams required only of Track A students.

Program	Core Courses	Credits	Foreign Language	Practicum	Thesis	Comp. Exams	Oral Exams	Dissertation	Final Project
Environmental Sciences (PhD)*	R	60	N	N	N	R	R	R	N
Environmental Sciences/ Environmental Biology (PhD)*	R	60	N	N	N	R	R	R	N
Environmental Sciences (MS)*	R	30	N	N	R	N	R	N	R
Gerontology*	R	60	N	N	R	R	R	R	N
History	R	30	R	N	R	N	R	N	N
History/Historical Archaeology	R	38-44	N	R	R	N	R	N	N
History/Archival Methods	R	30	R	N	R	N	R	N	N
Human Services*	R	18 competencies	N	R	N	N	N	N	R
Instructional Design (MA)*	R	36	N	R	R	N	N	N	R
Instructional Design/Educational Technology (Graduate Certificate)	R	15	N	N	N	N	N	N	N
Nursing*	R	42	N	R	O	N	N	N	N
Applied Physics*	N	36	N	O	O	N	N	N	N
Public Affairs*	R	38	N	N	N	N	N	N	R
Public Policy*	R	66	N	R	N	R	R	R	N
School Psychology	R	66	N	R	N	R	N	N	N
Applied Sociology*	R	36	N	R	R	R	N	N	N
Special Education*	R	42	N	R	N	N	N	N	R
Women in Politics and Government	R	18	N	R	N	N	N	N	R

* See below for more information. Key: R=Required O=Optional N=Not Required/Not Applicable

Environmental Sciences (PhD)
Environmental Sciences/
Environmental Biology (PhD)
While proficiency in a foreign language is not a formal requirement for the doctoral degree, a student's dissertation committee may require that proficiency by demonstrated.

Additional credits are given for dissertation research. Please see the program description in this publication for complete information.

Environmental Sciences (MS)
Either a thesis or final project is required. Consult the GPD for further information.

Gerontology
Students in the program must complete, by the end of their third term, an empirical research paper equivalent to a master's-level thesis.

Additional credits are given for dissertation research. Please see the program description in this publication for complete information.

Human Services
Requires a student complete a minimum of three compencies in a field setting.

Instructional Design (MA)
Practicum required of people not working in a media-related field. Either a thesis or final project is required. Consult the GPD for further information.

Nursing
In addition to the MS degree, the graduate program offers two other options: a special curriculum for registered nurses to pursue both the BS and the MS; and a joint MS/MBA degree in cooperation with the Graduate Program in Business Administration. Please see the Nursing Program description in this publication for complete information.

Applied Physics
To complete the MS degree a student must complete either an internship at an off-campus research laboratory or an on-campus thesis project. Consult the GPD for further information.

Public Affairs
To complete the MS degree students must complete a case study (in lieu of a thesis) which carries three credits.

Public Policy
Additional credits are given for dissertation research. Please see the program description in this publication for complete information.

Applied Sociology
Requires all degree candidates do field work, i.e., an internship that reflects both the academic and professional interests of the students. Consult the GPD for further information.

Special Education
In response to the new state teacher certifi-cation requirements which took effect on October 1, 1994, the exact number of courses and credits needed to satisfy MEd requirements for students pursuing full certification will vary on a case-by-case basis for all students entering as of fall,1993.

Tuition, Fees, and Payments

Tuition, Fees, and Payments

Important Reminders

Students are not considered registered unless their bills have been paid in full. While no time or deferred payments are allowed by the University, students unable to pay their semester bill all at once can, for a small fee, arrange payment with an outside tuition management agency, so long as they do so before the semester begins. Information about this option is available at the Bursar's Office.

The financial requirements of the University, changing costs, state and legislative action, and other circumstances may require adjustments in the tuition and fees stated or estimated below. The University reserves the right to make such adjustments in these charges as may from time to time be required by the Higher Education Coordinating Council or the Board of Trustees. Students acknowledge this reservation by submitting applications for admission or by registering for classes.

Tuition and application fees are charged at different rates for residents and non-residents of Massachusetts. Prospective students should be sure to refer to the information under "Residency Status" on page 18 of this publication.

Tuition and application fees are also charged at different rates for graduate and undergraduate students. Graduate students taking undergraduate courses must pay graduate tuition rates.

All charges are set by the Higher Education Coordinating Council or the Board of Trustees.

Initial Fees

Application Fee

Each application for admission to the University from a student seeking a degree must be accompanied by a non-refundable application fee payment of $20.00 for qualified Massachusetts residents, $35.00 for non-residents. For complete information on qualifications for Massachusetts residency, see "Residency Status" on page 18.

Checks should be made payable to *The University of Massachusetts Boston*, and submitted together with completed application forms.

Fees Charged Only in the First Semester

Each *degree-seeking student* is charged three fees at the beginning of his or her first semester as a degree-seeking student. The *pre-registration/orientation fee* ($25.00) helps to support orientation events for new students. The *recreation fee* ($80.00) helps to support the University's recreational programs and facilities. The *registrar's service fee* ($30.00) is a prepayment for the copying of transcripts or any other official record. All such records will be photocopied and sent to the student when requested, or forwarded to a third party, at no further charge. This is a "lifetime" fee, entitling students to these services while they are enrolled at UMass Boston or at any time after graduation. These fees may not be cancelled or refunded unless the student withdraws before the first day of classes.

Please note: *Non-degree-seeking students* are not required to pay the orientation, recreation, and registrar's service fees. Each must, however, pay a *registration fee* of $25.00 and a $3.00 *transcript fee* during each semester of registration as a non-degree-seeking student.

Explanation of Charges in "Tuition and Fees per Semester" Table

Tuition (In-State Rate)

As a state institution, the University of Massachusetts Boston offers a low rate of tuition to all students entering from the Commonwealth. Eligibility for admission under the low residential rate is determined according to a policy established by the Board of Trustees and detailed under "Residency Status" on page 18.

Mandatory Fees

The *student activities fee* is used to support programs and activities beneficial to students, such as recognized student organizations and the University Cultural Events Committee. The *health service fee* supports the University Health Service and its programs. The *athletics fee* supports the University's athletics program. The *identification card fee* is used to support the cost of making identification cards (with photographs); all continuing students are charged this fee each fall, and all new or re-entering students are charged the fee before the first semester of attendance. The *curriculum support fee* assists the University's efforts to maintain the quality and breadth of its educational programs.

Graduate Tuition and Fees Per Semester, 1995-1996

Tuition	**per credit**	**maximum**
Resident	$116.00	$1,390.00
Non-resident	$357.00	$4,284.00
Mandatory Fees per Semester	**1-6 credits**	**7 or more credits**
Student Activities	25.00	42.00
Health Service	30.00	60.00
Athletics	31.00	50.00
Identification Card*	5.00	5.00
Curriculum Support Fee	**5-8 credits**	**9 or more credits**
	320.00	948.00
Please note: The Curriculum Support Fee for students carrying 1-4 credits is $150.00		
Optional Fees		
Mass PIRG	5.00	5.00
Voluntary Student Aid Fee	4.00	4.00
Health Insurance	**1-6 credits**	**7 or more credits**
Student Health Insurance Plan (Please see note for more information)	635.00	635.00

*Charged one (1) semester per year.

Please note: Under the provisions of the Massachusetts Universal Statute, graduate students taking at least 7 credits who choose not to be covered by the University's medical insurance plan must show that they already have equivalent coverage. This regulation applies to both degree-seeking and non-degree-seeking students. For complete information, see "University Health Service" on page 26 of this publication.

Tuition, Fees, and Payments

Optional Fees

Charges for optional fees appear on the bills of degree-seeking students; but these students *may choose not to pay these fee charges, providing they notify the University before payment for these charges is due. The MassPIRG fee* supports the Massachusetts Public Interest Research Group, a student-interest advocacy group. The *Voluntary Student Aid Fee* is part of the University's effort to offset federal cutbacks and the rising cost of higher education by seeking new sources of funding for aid to financially needy UMass Boston students. No notice of this fee appears on the term bill each student receives from the bursar's office. Those University students wishing to make this voluntary contribution do so by writing "VSAF" on the front or back of this bill, and then adding $4.00 to their total payment.

Health Insurance Plan

The Student Health Insurance Plan provides coverage for health, medical, and surgical care during a twelve-month period for injuries or illness during the school year, holidays, and summer vacation. Students who register for the fall semester have only one opportunity to enter or reject this program each year; it is offered on spring semester bills to new spring registrants only. Non-degree-seeking students who wish coverage through the program must pay the fee before the end of the add/drop period. Dependents of married students are not covered under this plan. Coverage for dependents is available at additional cost; students wishing such coverage should inquire at the University Health Service.

Expenses	At Home	Away from Home
(Academic Year)	(9 month period)	(12 month period)
Tuition (12 credits, in-state)*	$2,780.00	$2,780.00
Activities Fee	84.00	84.00
Athletics Fee	100.00	100.00
Curriculum Support Fee	1896.00	1896.00
ID Card	5.00	5.00
Health Fee	120.00	120.00
MassPIRG (optional)	10.00	10.00
Health Insurance**	635.00	635.00
Room and Board Allowance	2,000.00	7,104.00
Books and Supplies	568.00	568.00
Personal Expense Allowance	1,401.00	1,401.00
Transportation	1,026.00	1,026.00
Totals	**10,625.00**	**15,729.00**

*Out-of-state full-time tuition for two semesters is $8,568.00.

**Please note: Under the provisions of the Massachusetts Universal Health Insurance Statute, graduate students taking at least 7 credits who choose not to be covered by the University's medical insurance plan must show that they already have equivalent coverage. This regulation applies to both degree-seeking and non-degree-seeking students. For complete information, see "University Health Service" on page 26 of this publication.

Program Fee

Each degree-seeking graduate student is required to maintain continuous registration until the degree that the student is seeking has been formally awarded. If a graduate student does not register for course, thesis, or dissertation credits during any semester, the student must pay a program fee to maintain continuous registration. The program fee for all students is $90.00 per semester. Note: Payment of the program fee does not extend the time limit for completion of the degree.

Any student who is required to pay a program fee and does not do so by the last day of the add/drop period will be subject to administrative withdrawal from the University. If the student later seeks readmission or applies for graduation, the student must pay all accumulated program fees, as well as a $25.00 readmission fee.

Lab Fees

Some graduate programs have established *lab fees* for certain courses. These fees support course-related activities that would not otherwise be made available. Students enrolled in such courses accept the responsibility to pay the fee.

Commencement Fee

The University's annual commencement exercises and events are intended to be self-supporting; each student is therefore required to pay a commencement fee (currently $40.00) at the time he or she files for graduation.

Cost of Attendance

A budget for the cost of graduate study at UMass Boston may be compared to any general budget familiar to most people, such as a household or personal budget. Within that budget, a number of factors may change from time to time due to rising labor costs, changes in the costs of goods and services, and other influences.

The sample graduate study "institutional budget" on this page is an estimate (for 1995-1996) of the average cost of attendance and is used by the University when individual applications for financial aid are considered.

Payment Information

Bursar's Office

The Bursar's Office handles payments of tuition and fees, and distributes checks to students receiving refunds or University financial aid. The Bursar's Office will begin to distribute these checks about five weeks after the start of each semester. Checks must be picked up by their recipients at the office which is on the second floor of the Administration Building. Telephone: 287-5350. Teller hours: weekdays, 9:00 am to 3:30 pm.

Payment by Degree-seeking Students

University policy requires that no registration be considered complete until the semester charges are paid in full. Charges are computed on the basis of courses/programs for which students are registered. The initial bills are sent in July (for the fall semester) and in December (for the spring semester) to all students who have already registered.

Late registrants are billed after the add/drop period. Follow-up billings will be made periodically, reflecting any additional charges, payments, or credits that have occurred within the semester period. Each student must pay all charges in full prior to the due date indicated on the initial bill to avoid late charges or cancellation of registration and financial aid. No time or deferred payments are allowed by the University.

Overdue accounts will be considered sufficient cause for cancellation of registration, as University regulations prohibit final registration, graduation, or granting of credit for any student whose account with the University is unpaid. *Any delinquent accounts will be cause for administrative withdrawal and must be paid prior to readmission to the University.*

Unpaid accounts will be referred for collection action with an additional collection cost of 33 1/3% of the total unpaid.

Payment by Non-degree-seeking Students

All non-degree-seeking students must pay in full when they register. If they are Massachusetts residents but fail to complete the residency section of the registration form, they may be charged tuition at non-resident rates

Credit Card Payments

Both degree-seeking and non-degree-seeking students may make payments with VISA and MasterCard. Payments must be made by mail or in person at the Bursar's Office.

Important Reminder for Financial Aid Recipients

It is the responsibility of all students receiving financial aid from sources other than the University to see that the University is adequately notified before bills are prepared. Credits for known scholarships are reflected in the bills; credit cannot be given for a scholarship award unless the Bursar has been presented with proof from the donor that the award has been made. If a student's bill does not show credit for an award, the student should contact the source of the scholarship to be sure that such evidence has been, or will be, presented to the Bursar.

Late Payment Fee

Any student who does not make full payment of his or her charges by the date specified on the bill in which the charges are initially listed will be required to pay a late payment fee of $50.00. This charge is cumulative. An additional $50.00 will be assessed on each subsequent bill until full payment is received.

Late Registration Fee

Any continuing degree-seeking student who does not register during the advance registration period (usually near the end of the semester preceding the semester for which he or she is registering) will be required to pay a late registration fee of $50.00.

Any new, readmitted, or non-degree-seeking student who receives permission to register after the add/drop period ends will be required to pay the $50.00 late registration fee.

Refunds and Reductions in Tuition and Fees

A student who voluntarily withdraws from the University for any reason before the sixth week of a semester will be granted a refund or reduction of tuition and fees according to the schedule below.

Refund/Reduction Schedule*

	Amount Refunded If Advance Payment Has Been Made	Amount Owed If No Payment Has Been Made
A. Before the beginning of the semester	100%	0%
B. Within the first two weeks of the semester	80%	20%
C. During the third week	60%	40%
D. During the fourth week	40%	60%
E. During the fifth week	20%	80%
F. After the fifth week	no refund	100%

*Does not apply to Continuing Education or Summer Session refunds.

Note: Failure to attend does not constitute withdrawal. To withdraw, a student must confer with the director of the graduate program in which he or she is enrolled, and submit a completed withdrawal form to the Office of Graduate Admissions and Records. The effective date of withdrawal is the date this completed form is received by the Office.

During the add/drop period, a full refund will be given for any course from which a student withdraws. After the add/drop period, no refunds will be given for course load reductions. Students withdrawing completely from the University before the sixth week of a semester, and receiving grades of "W" for all courses, will receive refunds. No refunds will be disbursed in other cases where grades of "W" are given. No refunds will be given in cases where academic credit has been awarded.

If a financial aid recipient withdraws from the University, his or her refund will first be applied to the reimbursement of scholarship or loan funds, up to the full amount of the scholarship or loan; any remaining amount will then be refunded to the student. A student who is suspended or expelled from the University for disciplinary reasons forfeits all right to a refund. A student who has not paid in advance will be liable for any amounts due after the reduction in charges.

Please note: Fees charged only in the first semester will not be cancelled or refunded unless the student withdraws before the first day of classes. These include, for degree-seeking students, the pre-registration/orientation fee, the recreation fee, and the registrar's service fee. For non-degree-seeking students, they include the registration fee and the transcript fee.

Residency Status

Part I. Definitions

*1.1 **Academic Period***: a term or semester in an academic year or a summer session, as prescribed by the Board of Trustees or under their authority.

*1.2 **Continuous Attendance***: enrollment at the University for the normal academic year in each calendar year, or the appropriate portion or portions of such academic year as prescribed by the Board of Trustees or under their authority.

*1.3 **Emancipated Person***: a person who has attained the age of 18 years and is financially independent of his or her parents, or if under 18 years of age, (a) whose parents have entirely surrendered the right to the care, custody and earnings of such person and who no longer are under any legal obligation to support or maintain such person; or (b) a person who is legally married; or (c) a person who has no parent. If none of the aforesaid definitions applies, said person shall be deemed an "unemancipated person".

1.4 Parent

a. the person's father and mother, jointly;

b. if the person's father is deceased, the person's mother; if the person's mother is deceased, the person's father;

c. if neither the father nor mother is living and no legal guardian has been appointed, the person who then stands in loco parentis to the person;

d. if the father and mother are divorced, separated or unmarried, the parent who has been awarded legal custody of the person; if legal custody has not been awarded, the parent with whom the person lives.

With respect to any adopted student the word "adoptive" should be inserted before the words "father" and "mother" wherever used.

*1.5 **"Reside", "residency" or "resident"*** shall mean "domicile", habitation, where he or she intends to remain permanently.

Part II. Classification

2.1 For the purpose of assessing tuition and fees, each student shall be classified as a "Massachusetts resident" or a "non-Massachusetts resident." A person shall be classified as a Massachusetts resident if he or she (or the parent of an unemancipated student) shall have resided in the Commonwealth of Massachusetts for purposes other than attending an educational institution for twelve months immediately preceding the student's entry or re-entry as a student.

Physical presence for this entire twelve-month period need not be required as long as the conduct of the individual, taken in total, manifests an intention to make Massachusetts his or her permanent dwelling place.

Part III. Determination of Residency

3.1 Proof of Residency

a. Each case will be decided on the basis of all facts submitted with qualitative rather than quantitative emphasis. A number of factors are required to determine the intention of the person to maintain permanent residency in Massachusetts. No single index is decisive. The burden of proof rests on the student seeking classification as a Massachusetts resident.

b. The following shall be primary indicia of residency:

1. For unemancipated persons, the residency of parents, having custody, within Massachusetts;
2. Certified copies of federal and state income tax returns;
3. Permanent employment in a position not normally filled by a student;
4. Reliance on Massachusetts sources for financial support;
5. Former residency in Massachusetts and maintenance of significant connections there while absent.

c. The following shall be secondary indicia of residency, to be considered of less weight than the indicia listed above in subsection b:

1. Continuous physical presence in Massachusetts during periods when not an enrolled student;
2. Military home of record;
3. All other material of whatever kind or source which may have a bearing on determining residency.

3.2 Proof of Emancipation

A student asserting that he or she is an emancipated person shall furnish evidence to support such assertion. Such evidence may include:

a. Birth certificate or any other legal document that shows place and date of birth;

b. Legal guardianship papers—court appointment and termination—must be submitted;

c. Statements of the person, his or her parent(s), guardian(s), or others certifying no financial support;

d. Certified copies of federal and state income tax returns filed by the person and his or her parent(s);

e. Where none of the foregoing can be provided, an affidavit of the emancipated person in explanation thereof and stating fully the grounds supporting the claim of emancipation.

3.3 Presumptions, etc.

a. Residency is not acquired by mere physical presence in Massachusetts while the person is enrolled in an institution of higher education (see section 2.1).

b. A person having his or her residency elsewhere than in Massachusetts shall not be eligible for classification as a Massachusetts resident for tuition purposes, except as herein provided.

1. Any person who is registered at the University as a Massachusetts resident shall be eligible for continued classification as a Massachusetts resident for tuition purposes (until attainment of the degree for which he or she is enrolled) during continuous attendance at the institution.
2. The spouse of any person who is classified or is eligible for classification as a "Massachusetts resident" is likewise eligible for classification as a "Massachusetts resident." This provision will not apply in the case of a spouse in the United States on a non-immigrant visa.

Residency Status

3. A person who is an immigrant/ permanent resident of the United States (or has applied for such status) is eligible to be considered for Massachusetts residency for tuition purposes provided that he or she meets the same requirements for establishing residency in Massachusetts as are required of a United States citizen. Non-citizens who are in (or who have applied for) refugee/asylum status are likewise eligible to be considered for Massachusetts residency for tuition purposes provided that he or she meets the same requirements for establishing residency in Massachusetts as are required of a United States citizen. All non-citizens must provide appropriate documentation to verify their status with the United States Immigration and Naturalization Service.
4. Those students whose higher educational pursuits are funded by the Department of Welfare, the Massachusetts Rehabilitation Department, or any of the other Commonwealth of Massachusetts public assistance programs.

c. A person does not gain or lose in-state status solely by reason of his or her presence in any state or country while a member of the Armed Forces of the United States.

d. For the purposes of this policy the following persons shall be presumed to be Massachusetts residents:
   1. A member of the Armed Forces of the United States who is stationed in Massachusetts on active duty pursuant to military orders, his or her spouse and dependent students.
   2. Full time faculty, professional staff, and classified staff employees of the University of Massachusetts system and their spouses and dependent students.

Part IV. Appeals

Any student or applicant who is unwilling to accept the initial ruling relative to his or her residency classification may file a "Residency Reclassification Form."

Any student or applicant who is unwilling to accept the ruling relative to his or her residency reclassification may submit an appeal to the University's Residency Appeal Committee. The decision by this committee is final and may not be appealed further.

In any case where the Office of Graduate Admissions and Records is unable to make an initial determination based on the evidence submitted, the applicant may be required to submit a "Residency Reclassification Form" to the office for review before being finally classified as a resident or a non-resident.

Part V. Penalties

Misrepresentation in or omission of any evidence submitted with respect to any fact, which if correctly or completely stated would be grounds to deny classification as a Massachusetts resident, shall be cause for exclusion or expulsion from or other disciplinary action by the University.

Assistantships and Financial Aid

Assistantships

The University offers a limited number of graduate assistantships in teaching or research to qualified students. Applicants for admission to graduate programs should consider applying for assistantships.

Stipends and Tuition Waivers

All assistantships carry stipends. The amount of each stipend depends upon the workload of the assistant receiving the stipend. An assistant who has been awarded at least half the full-time stipend is eligible for a tuition waiver.

Responsibilities and Periods of Appointment

Full-time graduate assistants are expected to work approximately fifteen to twenty hours per week. Some assistants hold part-time appointments. Some assistants are given teaching responsibilities or responsibilities related to teaching; others assist in research work of various kinds. No assistant at the master's level may be appointed for a period longer than two semesters. Reappointment is possible, but the University is under no obligation to reappoint any student to an assistantship.

Eligibility

Assistants must be currently enrolled degree-seeking (matriculated) graduate students in good academic standing. Part-time assistants must be registered for at least six credits, and full-time assistants must be registered for at least nine credits.

Applications

Graduate program directors are responsible for recommending to the Office of Graduate Studies that students be awarded assistantships. Any student wishing to apply for an assistantship should therefore contact the appropriate graduate program director for information about the application procedure. Information about assistantships is also available from the Office of Graduate Studies.

Students seeking assistantships should apply as early as possible—preferably at least ten weeks in advance of the period for which they are seeking appointment.

Financial Aid

Through UMass Boston's Office of Financial Aid Services loans and part-time and summer employment opportunities are available to degree-seeking graduate students entering the University in the fall and the spring.

Applicants are encouraged to apply early as funds are limited. Once they have applied for financial assistance, applicants are automatically considered for every form of currently available University administered aid for which they are eligible.

Note: All eligible students have the right to apply for financial aid and must be considered fairly and equally, without regard to race, color, sex, age, religion, national origin, sexual orientation, disability, or veteran status.

A complete list of other student rights and responsibilities in connection with financial aid may be found under "Regulations, Procedures, and Degree Requirements" on page 37 of this publication.

Application Procedures

1. The applicant must submit a completed Free Application for Federal Student Aid form (FAFSA). FAFSA forms are used to determine eligibility for Federal Perkins Loans, Federal Stafford Loans, and Federal College Work-Study awards. FAFSA forms may be obtained from the Office of Financial Aid Services or from the applicant's current college or university. The completed form should be mailed to the address indicated on the application packet. In some cases, the Office of Financial Aid Services may ask to see additional documentation.
2. The applicant must submit a completed University of Massachusetts Boston Supplemental Financial Aid Application form, available at the Office of Financial Aid Services.
3. The applicant must submit financial aid transcripts from each institution previously attended. The appropriate forms are available at the Office of Financial Aid Services.
4. The applicant may be required to submit an income verification form. If so, the form will be mailed to the applicant by the Office of Financial Aid Services.

Although no deadline has been established for incoming students, they are encouraged to apply for financial aid by the priority date of March 1, for the following academic year. Returning graduate students should also apply for aid by March 1. Applications received after that date will be processed on a first-come, first-served basis. Awards will be made on the basis of available funds.

How Awards are Made

The Office of Financial Aid Services uses the following formula to determine the amounts of awards.
Applicable Estimated Expenses
minus
Student and/or Family Contribution
equals
Student's Financial Need

Estimated expenses are a projection of a typical student's school and living expenses for a nine-month period. The Office establishes such estimates each year in several categories (according to students' living situations) and reviews them at intervals. The amount of a student *and/or family contribution* is determined by an analysis of the information on a student's FAFSA. Financial aid is then given in "packages" combining loans and part-time job opportunities. In awarding a financial aid package, the Office of Financial Aid Services takes into account the student's *financial need*, but cannot guarantee that it will be able to meet a student's total "need", or that it can offer the particular kind of aid desired by the student.

Federal Funding Sources

Students may be eligible to receive aid through one or more of the federal programs listed below. Note: to meet minimum eligibility requirements, a student must be a citizen or a permanent resident of the United States and must be registered as a degree-seeking student for at least six academic credits per semester.

1. *Federal Perkins Loans* are made at a 5% interest rate to both undergraduate and graduate students. Students must begin to repay Perkins loans six months after graduation, withdrawal, or enrollment for fewer than six academic credits in any given semester.
2. Through the *Federal Work-Study Program (FWS)*, job opportunities are available on and off campus, during the academic year and during the summer, to undergraduate and graduate students. Students must work to earn FWS funds for which they are eligible.
3. *Federal Stafford Loans* (formerly Guaranteed Student Loans) are offered to graduate students at a variable interest rate, not to exceed 9 percent. Students may use Federal Stafford loans to supplement other financial aid. Students must begin to repay Stafford loans six months after graduation, withdrawal, or enrollment for fewer than six academic credits in any given semester.

Financial Aid

Other Funding Sources

Students may be eligible for aid from sources other than those listed above. Reference works listing scholarship opportunities are available in public libraries, in the Office of Financial Aid Services Scholarship Resource Library, and at the Higher Education Information Center, 666 Boylston Street, Boston.

Information and Correspondence

Students who have questions about financial aid or who wish to obtain a FAFSA or to submit documents supporting an application for aid should use the address and telephone number below.

Office of Financial Aid Services
University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125-3393
617 287-6300

Students are strongly advised to keep copies of *all* documents and correspondence regarding financial aid that they submit to the University or elsewhere.

Facilities, Programs, and Services

Facilities, Programs, and Services

Library

The University's Joseph P Healey Library at the Harbor Campus houses some 500,000 carefully selected volumes and currently receives more than 3,500 domestic and foreign journals and newspapers. It also maintains a growing collection of government documents and microform publications, and electronic serial indexes. These resources support UMass Boston's programs at every level. The Healey Library is centrally located on the Harbor Campus plaza and easily accessible from the bridge connecting all campus buildings.

All library holdings are entered in the easy to use on-line public access catalog (OPAC) which has replaced the library's card catalog. This catalog contains a record of every book, journal, government document, and audio tape held by the University Library. From outside the library, OPAC can be used by anyone who has either a terminal and a modem, or a personal computer with telecommunications software and a modem. On-line bibliographic searching is also available.

The University belongs to the Greater Boston Consortium of Academic and Research Libraries, whose membership includes the libraries of Boston College, Boston University, Brandeis University, MIT, Northeastern University, Tufts University, UMass/Amherst and Wellesley College. Graduate students may use materials on site at any of these libraries, and are eligible to apply for Consortium cards granting borrowing privileges at these institutions.

Borrowing privileges, as well as on-site use, are also available at libraries of the ten institutions belonging to the Fenway Consortium and at the libraries of the Commonwealth's 28 public colleges and universities. In addition, graduate students are eligible to borrow through the Healey Library's Interlibrary Loan Department, which has access to collections throughout the United States and in many other countries.

Computing Services

UMass Boston's Department of Computing Services provides hardware, software, and services to facilitate and support instructional activities at the University.

Through a cluster of DEC VAX/VMS minicomputers, students have full access to the Internet and thus to library catalogs and academic resources throughout the world. Students may access their VAX accounts either from terminal rooms on campus or through dial-up access from home. The VAX cluster also offers a variety of programming languages and statistical software.

The Department of Computing Services operates public computer labs equipped with DOS/Windows and Macintosh microcomputers, and DEC VT220 terminals. These labs, open seven days a week, provide access to a large number of word processing, spreadsheet, database, statistics, and desktop publishing software packages; as well as specialized courseware. The labs also serve as sites for a number of graduate courses. For students with physical and learning disabilities, the Adaptive Computing Lab offers a wide range of services. For more information on this resource, see "Adaptive Computing Laboratory" on page 25 of this publication.

Through the labs and other resources, the department provides a variety of support services to students, faculty, and staff. Workshops designed to introduce students to basic computer use, to the Internet, and to some software packages are presented at the beginning of each semester. Handouts and tutorials on selected software are available in the labs. Department staff members, student consultants, and a help desk all provide support to both new and experienced computer users. And for students who own or would like to own computers themselves, the on-campus Beacons Computer Store offers special educational pricing on Macintosh computers and on software for both Macintosh and DOS/Windows platforms.

Further information about computer resources is available at the computer labs on the upper level of the Healey Library, or from the Computing Services Help Desk (617 287-5220).

Media Services

UMass Boston's Media Services provide a full range of audio-visual equipment, located in several media labs, and consultation, for instructional and other University-related purposes. The media labs provide access to display and mini-production audio, video, and mixed media equipment on a University-wide scheduled basis. In addition, language laboratories are available for use in conjunction with foreign language courses. The tapes used in laboratory sessions are closely correlated with classroom studies and many are produced within the Media Center. The Center's sophisticated media production facility, located in the Healey Library, is equipped with a computer-assisted video editing system and a multitrack audio studio.

John F Kennedy Library

The John F Kennedy Presidential Library, a public institution for education and research, stands on the coastal edge of the Harbor Campus. The IM Pei-designed facility was established to preserve and make available the documents and memorabilia of President Kennedy and his contemporaries in politics and government. Its archival collection includes approximately twenty-eight million pages of documents, six and a half million feet of film, and over one hundred thousand still photographs. The JFK Library is linked to the University by a series of educational programs allowing students and their instructors to share in its rich resources.

State Archives

The archives of the Commonwealth of Massachusetts are housed adjacent to the Harbor Campus in the Massachusetts Archives and Commonwealth Museum. Members of the University community can benefit greatly from this rich resource, whose research materials cover three and a half centuries.

Athletics and Recreation

The Catherine Forbes Clark Athletic and Recreation Center provides a broad range of modern facilities to the University community. The Center houses a gymnasium, a skating rink, and a competition-sized pool, all with ample seating for spectators, as well as gymnastic, weight-training, and exercise rooms, and a dance studio. The building also provides a home for the University's intercollegiate programs for men and women.

The Beacon Fitness Center, located in McCormack Hall, serves the needs of UMass Boston's students, faculty, and staff. The center offers Nautilus machinery, cardiovascular equipment, and free weights; as well as courts for racquetball, squash, and handball, an aerobics room, and a lounge.

Facilities, Programs, and Services

Outdoor facilities include tennis courts; three athletic fields marked for football, lacrosse, soccer, softball, and volleyball; and a 400-meter running track. The University's sailing dock moors a fleet of Mercury sailboats and rowing dories available for use during the spring, summer and fall, as weather permits. A swimming test is required of all who wish to participate in water sports. For sailing, a helmsman test is administered by the sailing instructor; once the test is passed, boats may be taken out whenever available.

Information about schedules and locations may be obtained from the Athletics Department (617 287-7800).

Bookstore

Located in the Robert H Quinn Administration Building, the bookstore carries all textbooks required for courses, a complete line of art and school supplies, and gift items. It also carries a selection of paperbacks. Special orders can be made for almost any other book in print. The bookstore also buys and sells used books. It is open Monday through Friday, 8:30 am-5 pm, and has longer hours during the first weeks of each semester (617 287-5090).

Child Development Program

The University operates a licensed child care center for children of University students, staff, and faculty, and for those of community residents. At the center, on Mount Vernon Street near the Harbor Campus, there is a Toddler Program for children between the ages of 18 months and 2 years 9 months, and a Preschool Program for children 2 years 9 months to 5 years. Teachers in these programs work together with student teachers, work-study students, and volunteers to encourage children to become aware of themselves and their potential, and to develop their capacities for learning, self-reliance, cooperation, initiative, and responsibility. Costs for University-affiliated parents are on a sliding-fee scale. Financial assistance is available for eligible families (617 287-1540)

Disability Services

The Lillian Semper Ross Center for Disability Services

The Ross Center assists the University in providing equal access for individuals with disabilities. The Center makes available to students such auxiliary aids and related support services as sign language interpreting, note taking, testing accommodations, advocacy, and counseling. Throughout the year it also offers information resources and a variety of activities for students. The Center serves the entire UMass Boston community by providing employees and departments of the University with advice and information on disability issues as needed.

The Center's goals are

- to reduce the competitive disadvantage in academic work by providing reasonable classroom accommodations;
- to provide individual and peer group counseling as a means of increasing personal independence, developing self-esteem, and strengthening interpersonal skills;
- to increase awareness of the value of advocacy for the civil and human rights of people with disabilities; and,
- to coordinate institutional efforts to comply with the broad mandates expressed in sections 503 and 504 of the Rehabilitation Act of 1973.

For further information about the Ross Center and its services, please call 617 287-7430 voice/TDD/text.

The Adaptive Computing Laboratory

The Adaptive Computing Laboratory, overseen jointly by the University's Department of Computing Services and the Lillian Semper Ross Center for Disability Services, makes a full range of computing services accessible to all students, faculty, and staff with disabilities. They may also receive individualized evaluation, training, and continuing support in the use of software and hardware adaptations, from trained consultants working with the lab.

Available state-of-the-art hardware and software includes:

- IBM PCs, PC clones and Macintosh microcomputers
- voice synthesizers
- voice recognition systems
- large print display systems
- keyboard adaptations, switching devices
- an optical head pointing device
- commonly used commercial software and software adaptations
- a Kurzweil Reading Machine

Please call the center for more information at 617 287-5227; voice/TDD/text: 617 287-1960.

Campus Ministry

The Campus Ministry is an interfaith chaplaincy service actively involved in the spiritual and human development of students, faculty, and staff. Protestant and Catholic chaplains, and Jewish and Muslim advisors, offer liturgical, educational, cultural, social, and spiritual programs. Among these programs are daily prayer, mid-week liturgies, scripture seminars, ecumenical services, study groups, pastoral counseling, spiritual direction, lectures, workshops, and Bible study. The Campus Ministry also does fund raising for local and international hunger relief, co-sponsors events with other campus departments and offices, conducts retreats, and operates a lending library of theological and spiritual books.

Career Services

Graduate students at UMass Boston have access to a broad range of career services offered through the University Advising Center. The center provides information for students and alumni about career opportunities, and facilitates contacts with prospective employers. Individual counseling and group seminars in career planning alert students to the many and varied career opportunities available and to the requirements of prospective employers, as well as to the changing nature of employment opportunities. The center also offers seminars in résumé writing, interviewing techniques, and the job campaign; as well as publishing a bi-weekly bulletin of current job listings that may interest students and alumni.

An active on-campus interview program is arranged each year so that students may meet employers and discuss current openings. The center maintains a referral service that sends student résumés to employers who have appropriate job openings. A Career Resource Library houses information on employment and salary statistics, as well as specific information on businesses, non-profit organizations, school systems, and government agencies.

Center staff offers special advising for students interested in the law, management, medicine, and teaching. The center also provides information on a variety of graduate study programs. Materials on many fields are available, as well as application forms for graduate and professional school admission tests (617 287-5514).

Facilities, Programs, and Services

University Health Service

The primary goal of the University Health Service is the maintenance of good health among UMass Boston students through access to convenient health care of high quality. The Health Service provides direct care for routine health problems, as well as the services of a pharmacist and laboratory technicians. The cost of these services is covered by the mandatory health service fee included in the student's tuition bill.

For those problems requiring more sophisticated or long-term care, the Health Service can refer students elsewhere: it maintains a list of carefully screened and selected medical practitioners, psychotherapists, and local community health facilities. The cost of these services is covered by the student's Health Insurance Plan (For complete information, see the "Health Insurance Plan" section below).

The Health Service facilities at the Harbor Campus are staffed by physicians and other specialists in general medicine, endocrinology, gynecology, internal medicine, surgery, psychiatry, clinical and counseling psychology, nursing, social work, and health education. The Health Service's main phone number is 617 287-5660.

Health Clearance

Before registering for classes, every student admitted to the University must obtain a health clearance by submitting to the University Health Service the completed Student Health History and Immunization Report Form, which is sent to them as part of their admissions packet. Documented evidence of immunization against measles (including a second measles shot), mumps, rubella, diphtheria, and tetanus is an important part of that health clearance. The necessary immunizations may be obtained at the Health Service for a nominal charge. This health clearance requirement is mandated by state law; students who fail to comply will be administratively withdrawn from the University.

Health Insurance

The Health Service is supported by the Student Health Fee that all University students pay; therefore, there are no additional charges for most of its services. However, in order to assure that students have coverage for the medical and surgical services not covered by the health fee, the Health Service annually negotiates a Student Health Insurance Plan, for which students are billed once a year. For further information about the UMass Boston Student Health Insurance Plan, see "Health Insurance Plan" on page 16 of this publication.

Please note: this health insurance plan is mandatory for all students who do not have comparable coverage under some other medical insurance plan. In order to substantiate the fact that they already have such comparable coverage, students must complete and submit to the Health Service the Waiver Form, obtainable at the Health Service main office. Students without such coverage must participate in the University's Student Health Insurance Plan. This health insurance requirement is mandated by Massachusetts state law.

Housing Referral Service

The University's Housing Referral Service, which operates free of charge, helps prospective and currently enrolled UMass Boston students find places to live. It maintains listings, updated daily, of rooms, apartments, and houses to rent or share; and of persons seeking compatible prospective roommates. The service will mail brief descriptions of its listings upon request, and can provide maps of the greater Boston area; a list of short-term housing opportunities, such as hotels and bed-and-breakfasts; and information about public transit, the logistics of moving, and tenants' rights. For more information, write, visit, or call

The Housing Referral Service
University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125-3393
617 287-6011, Fax: 617 287-6242

Department of Student Life

The Department of Student Life (617 287-7950) is interested primarily in the quality of student life at the University and is responsive to the concerns of students. This department oversees student governance, including the University's Student Senate and the administering of elections and referenda; it is also the sponsor for most student activities.

Student Activities

The extracurricular life of the University centers on activities supported through the Student Activities Trust Fund, which is overseen by the Department of Student Life. Established by the University Board of Trustees, the fund is maintained by mandatory student activities fees, and is administered by a professional staff following recommendations made by the Student Senate, which is responsible for coordinating and allocating funds for activities both on and off campus.

The Department of Student Life works with student clubs and centers, and is involved in a number of other activities, services, and facilities, including the Harbor Gallery and the Wit's End Cafe; a recreation center; student-run publications such as the *Mass Media* and *The Watermark*; a wide variety of lectures, cultural performances and poetry readings; a ticket series for reduced rates at Boston area cultural and athletic events; and free memberships at several Boston area museums.

Graduate Student Assembly

The Graduate Student Assembly embodies the recognized graduate governance structure at the University of Massachusetts Boston. The Assembly seeks to advance the academic and professional interests of all UMass Boston's graduate students, through planning and administering campus events; representing graduate student perspectives on issues affecting the University; funding small grants for graduate students to atend professional conferences; and carrying out a range of other activities. GSA representatives are matriculated graduate students elected annually. Assembly meetings are open to all interested students. The GSA office phone number is 617 287-7975.

Graduate Handbook

A graduate handbook which details the policies, practices, and guidelines affecting graduate students is available from graduate program directors or from the Office of Graduate Studies, 2nd Floor, Robert H Quinn Administration Building. Many individual graduate program offices also issue handbooks containing information and listing requirements specific to their programs.

Regulations, Procedures, and Degree Requirements

General Academic Regulations

All students should be familiar with the regulations and procedures described below. Note: none of these regulations or procedures shall preclude the development of more restrictive regulations and procedures by any individual graduate program.

Graduate Course Numbering System

Course Levels
500-599 Post-baccalaureate credit
600-699 Master's or first-year graduate
700-899 Doctoral and advanced graduate
900-999 Post-terminal degree

Fixed Numbers
690, 790, 890 Experimental courses
691-694, 791-794, 891-894
Seminars, variable titles
695-696, 795-796, 895-896
IndependentStudy, variable titles
697, 797, 897 Special Topics, variable titles
698 Practicum
699 Master's thesis
899 Doctoral dissertation

Registration Procedures

Both newly accepted and currently enrolled students must begin the course registration process by conferring with their graduate program directors. New student registration is scheduled by each individual graduate program. Currently enrolled degree-seeking (matriculated) students register , using the University's touch-tone telephone registration system, during the advanced registration periods beginning in April (for the fall semester) and November (for the spring semester). An "add/drop" period, usually five days in length, is provided at the beginning of each semester for students wishing to make changes in their schedules. All changes must be approved by the appropriate faculty member and graduate program director.

Continuous Registration

Each degree-seeking graduate student must maintain continuous registration until the degree sought by the student has been formally awarded. If the student does not register in any semester for course, thesis, or dissertation credits, he or she may maintain continuous registration by paying a program fee. For further information, see "Program Fee" on page 16 of this publication.

Retaking Courses

Unless otherwise noted a course may be taken more than once but may be offered only once toward degree requirements. A course counted toward a given degree may not be counted toward another degree.

Graduate Grading Policy

For graduate students, the University uses a system of letter grades that are equivalent to numerical "quality points" according to the following table.

Letter Grade	Quality Point Equivalent
A	4.00
A-	3.75
B+	3.25
B	3.00
B-	2.75
C+	2.25
C	2.00
F	0.00

The quality points for each grade are multiplied by the number of credits for the course, and the totals for all courses are added; this result is the student's cumulative quality point figure. The cumulative quality point figure is divided by the number of cumulative credit hours carried; this result is the student's cumulative quality point average. Please note: The Human Services Program, which has a competency-based curriculum, does not award letter grades or compile a cumulative quality point figure.

Graduate students may also be given grades of "NA" (Not Attending), "Inc" (Incomplete), "Y" (In Progress), "SAT" (Satisfactory),) and "AUD" (Audit). Explanations of these grades appear below.

Graduate students enrolled in undergraduate courses are graded according to this graduate grading policy; they may not elect the pass/fail grading option.

Not Attending (NA)

The Not Attending (NA) grade signifies that although a student registers for a course and appears on the class roster, the student never attended the class. The NA grade is not a substitute for dropping a course, since a student is still responsible for all tuition and fee charges for courses designated NA on his/her record. The NA grade has no effect on the student's cumulative grade point average.

The NA grade designation may be replaced on a student's record by a "W" (withdrawal) provided that the student submits a withdrawal form to the Office of Graduate Admissions and Records before the withdrawal deadline.

Incomplete

A grade of Incomplete (INC) is not automatically awarded when a student fails to complete a course. The student must negotiate with and receive the approval of the course instructor in order to receive a grade of incomplete. In all cases, a student can obtain credit for an "Incomplete" only by finishing the work of the course before the end of one calendar year from the time of enrollment in that course. At the end of that period, if a grade is not submitted an F (Failure) will be recorded. The initiative in arranging for the removal of an "Incomplete" likewise rests with the student. This regulation does not apply to thesis and dissertation credits but does apply to terminal project credits.

"Y" and "Sat" Grades for Practicum, Thesis and Dissertation Credits (Practicum 698, Thesis 699 and Dissertation 899)

The required number of thesis and dissertation credits varies by program. Credits range up to a maximum of 10 for masters' theses and from 10 to 27 for doctoral dissertations. No student is exempt from this requirement; normal tuition rates will apply. These credits will be graded Y (In Progress) until the thesis or dissertation has been accepted by the Office of Graduate Studies, at which time these credits will be converted to SAT (satisfactory).

Audits

A graduate student may audit any class on a space-available basis, but may not use that course to complete any degree requirement. Registration for audits is not permitted during pre-registration. To register as an auditor, a student must complete the regular registration or add/drop form (including written permission from the instructor to audit the course), write "AUD" in the course credit column, and submit the form to the Office of Graduate Admissions and Records by the end of the add-drop period. Once the course is designated "AUD," the student cannot receive a grade for it. Students are assessed full tuition and fees (including lab fees) for an audited course. Conditions for the audit are negotiated by the student and the instructor.

Academic Probation

A student is placed on probation when the graduate program director or department chair requests such action. A memorandum explaining the reason(s) for the recommendation along with the recommended criteria which the student must meet before the status is removed is forwarded to the dean of Graduate Studies and placed into the student's file. Probation can be removed only by the dean of Graduate Studies and only upon the recommendation of the graduate program director or department chair. Justification for either restoration to degree-seeking status or dismissal must accompany the request.

General Academic Regulations

Academic Dismissal

A student who in any two semesters, consecutive or otherwise, has semester averages of below 2.8 is subject to academic dismissal upon recommendation of the graduate program director to the dean of Graduate Studies.

Academic Average for Graduate Degrees and Certificates

A student must maintain a cumulative average of 3.0 in courses taken to satisfy requirements in order to graduate.

Satisfactory or Reasonable Progress

A student must make satisfactory or reasonable progress toward completion of a degree program within the University's policy on time limits for that degree. A student who is not making satisfactory or reasonable progress is subject to termination upon the recommendation of the graduate program director to the dean of Graduate Studies. See "Time Limits and Leaves of Absence" on page 32 of this publication.

Maximum Credit Load

A graduate student may register for up to 15 credits during the fall and spring semesters and nine credits during the summer. Any student who wishes to register for more than the maximum credit load must secure written permission from the graduate program director.

Full-time and Part-time Status

For most purposes, full-time graduate study is defined as nine or more credits and part-time as eight or fewer credits. Doctoral candidates engaged in dissertation research may be considered full-time students regardless of the number of dissertation credits for which they register, provided their graduate program certifies that they are working full time on research. Students seeking financial aid should be certain to obtain detailed information about full-time and part-time status requirements from the Office of Financial Aid Services.

Course Changes and Withdrawals

Adding or Dropping Courses

During the "add/drop period"—usually five days at the beginning of each semester—a student may add, drop, or change courses without penalty; that is, no entry will be made on the student's permanent record. No courses may be added after this period. Please note: a student enrolled in only one course and wishing to drop that course must either pay the program fee to remain active in the program, or withdraw from the program.

Withdrawing from Courses

After the add/drop period, a student may withdraw from a course, by completing a course withdrawal form before the withdrawal deadline noted for each term in the academic calendar. Withdrawal forms are available from the Office of Graduate Admissions and Records and must be submitted to that office by the published deadline. A grade of W will appear on the student's transcript for a course the student has withdrawn from.

Withdrawing from the University

The effective date of withdrawal from the University is that on which all forms are completed, signed and returned to the Office of Graduate Admissions and Records. The last day students may withdraw is the last day of classes of the semester. Students withdrawing receive a W for each course in which they are enrolled. Failure to complete a withdrawal form will result in the recording of the grade of F (failure) for all courses at the end of the term. To withdraw from the University, a student must do the following:

a. Consult with the graduate program director.

b. Receive clearance from any University office in which financial charges have been incurred.

Refunds and Reductions

Please note: Students receive a full tuition refund for each course dropped during the add/drop period. No refunds are given for course withdrawals after the add/drop period. Students withdrawing from the University may receive partial refunds depending on when the withdrawal takes place. For more information, see " Refunds and Reductions in Tuition and Fees" on page 17 of this publication.

Transfer Credit

Transfer of Courses and Credits from Other Institutions

Applicants who have completed graduate course work at other accredited institutions may transfer towards the completion of a graduate degree at UMass Boston up to the equivalent of 6 credits from courses in which the applicant received a grade of B or higher, provided these are courses that

- have not been used to fulfill requirements for another degree, and
- were earned no more than seven years before the student's matriculation at UMass Boston.

Transfer credit is subject to the final approval of the graduate program director and the dean of Graduate Studies.

Transfer of UMass Boston Courses and Credits Taken Over and Above Credits Earned for a Bachelor's Degree

A University of Massachusetts Boston undergraduate student in the senior year who will earn during this year more credits than needed for the bachelor's degree may register concurrently for graduate credits at the University of Massachusetts Boston, after securing the permission of the graduate program director and of the graduate course instructor. The Office of Graduate Studies will accept a maximum of six credits earned in this way, provided that they are from courses in which the student received a grade of "B" or better. After completing such a course, if the student wishes to transfer its credits to a graduate program, the graduate program director should submit a transfer credit approval form to the Office of Graduate Admissions and Records. The student should obtain from the undergraduate registrar a statement certifying that the course was not used to fulfill requirements for the bachelor's degree. Please note: Pass/fail credits may not be transferred.

Academic Honesty Policy

It is the expressed policy of the University that every aspect of graduate academic life, related in whatever fashion to the University, shall be conducted in an absolutely and uncompromisingly honest manner by graduate students. For complete information on University policy in this area, see "Code of Student Conduct" on page 33 of this publication.

Foreign Language Requirements

Each academic program establishes foreign language requirements for its own advanced degree candidates. The program determines both the number of foreign languages and the level of competency required. A foreign language is defined for this requirement as a language other than the candidate's native tongue, in which there is a significant body of literature relevant to his or her academic discipline. The term "foreign language" does not include computer languages.

Administrative Withdrawal and Reinstatement

A student may be administratively withdrawn from the University, if, after due notice, the student fails to satisfy an overdue financial obligation to, or to comply with certain administrative requirements of, the University.

General Academic Regulations

Rules and Regulations Governing Administrative Withdrawal

I. Conditions Warranting Administrative Withdrawal

Any of the following conditions may warrant administrative withdrawal.

A. Failure to comply with administrative requirements, specifically:
   1. Failure by a student to satisfy an overdue financial obligation to the University, consisting of tuition, loans, library charges, or other student charges, including orientation, student activities, health services, child care, and other such fees as may be established from time to time.
   2. Failure to comply with other administrative requirements, such as the submission of health forms, etc.

B. Forgery, fraud, or falsification of information on any official University form or document, such as grade report, recommendations, transcripts, etc.

C. Certified physical health or mental health problems of a hazardous nature.

II. Effects of Administrative Withdrawal

If administratively withdrawn, a student shall:

A. cease to be enrolled and shall not be allowed to complete the current semester or to register for future semesters;

B. return his or her identification card and any and all other property belonging to the University currently in his or her possession;

C. receive no further material or notification from the Office of Graduate Admissions and Records concerning University affairs.

III. Procedures for Implementing Administrative Withdrawal

A. Procedures to be applied to cases brought under the conditions of Section I.A
   1. The appropriate administrative official may recommend to the Office of Graduate Admissions and Records that a student be administratively withdrawn from the University.
   2. The administrative official shall make his or her recommendation in writing to the Office of Graduate Admissions and Records, detailing his or her compliance with the following requirements:
      a. The recommendation must be based on one of the grounds set forth in Section I.A
      b. The facts upon which the recommendation is based must be ascertained and stated precisely and accurately.
      c. An attempt to resolve the matter must have been made by the administrative official by mailing to the student at his or her last known address a written notice of the proposed recommendation for withdrawal and the reasons therefore, such matter not having been successfully resolved within fourteen calendar days of the mailing of said notice.
   3. If the director of the Office of Graduate Admissions and Records is satisfied that the conditions specified in paragraph 2 of this section have been satisfied, he or she shall send a certified letter to the student at his or her last known address setting forth the recommendation for withdrawal and the reasons therefore, and notifying said student that he or she may within fourteen calendar days after said letter is mailed request a hearing on the matter with the director. The director shall include with the certified letter a copy of the Rules and Regulations Governing Administrative Withdrawal.
   4. If the student does not request a hearing with the director or take action satisfactory to the director to resolve the matter within the time allotted in paragraph 3 of this section, the director shall administratively withdraw the student from the University no sooner than the fifteenth calendar day following the mailing of the notice provided for in said paragraph.
   5. If a student requests a hearing within the time allotted in paragraph 3 of this section, the director shall schedule a hearing at the earliest practicable date. If the director decides in favor of the administrative withdrawal, the director shall forthwith withdraw the student.

B. Procedures to be applied to cases brought under conditions B and C of Section I.
   1. The appropriate administrative official may recommend to the Administrative Withdrawal Review Committee that a student be administratively withdrawn from the University.
   2. The administrative official shall make his or her recommendation in writing to the Administrative Withdrawal Review Committee detailing his or her compliance with the following requirements:
      a. The recommendation must be based on one of the grounds set forth in Section IB or C;
      b. The facts upon which the recommendation is based must be ascertained and stated precisely and accurately;
      c. An attempt to resolve the matter must have been made by the administrative official by mailing to the student at his or her last known address a written notice of the proposed recommendation for withdrawal and the reasons therefore, such matter not having been successfully resolved within fourteen calendar days of the mailing of said notice.
   3. If the Administrative Withdrawal Review Committee is satisfied that the conditions specified in paragraph 2 of this section have been satisfied, it shall send a certified letter to the student at his or her last known address setting forth the recommendation for withdrawal and reasons therefore and notifying said student that he or she may within fourteen calendar days after said letter is mailed request a hearing on the matter with the committee.
   4. If the student does not request a hearing with the committee or take action satisfactory to the committee to resolve the matter within the time allotted in paragraph 3 of this section, the committee shall instruct the director of the Office of Graduate Admissions and Records to administratively withdraw the student no sooner than the fifteenth calendar day following the mailing of the notice provided for in said paragraph.
   5. If a student requests a hearing with the committee within the time allotted in paragraph 3 of this section, the committee shall schedule a hearing at the earliest practicable date. The student shall have the right to testify and to present witnesses or such other evidence as may be relevant; in addition the student shall have the right to have a physician or attorney present, or to cross-examine witnesses; or all of these. The committee shall hear the case and decide whether facts exist which warrant administrative withdrawal under Section IB or C. If the committee decides in favor of administrative withdrawal it shall submit to the student a written statement of its findings, its decision, and the conditions under which the student may be reinstated.

6. The student may appeal a decision by the committee in favor of withdrawal to the Vice Chancellor for Student Affairs within seven calendar days of the committee's decision. If the student does not appeal the committee's decision within the seven calendar days allotted, the committee shall instruct the director of the Office of Graduate Admissions and Records to withdraw the student. If the student does appeal to the Vice Chancellor for Student Affairs within the time allotted, the Vice Chancellor shall schedule an appointment at the earliest practicable date and at that time shall confer with the student, accompanied by counsel if the student so wishes, regarding the committee's finding, decision, and determination of reinstatement conditions. If the Vice Chancellor affirms the committee's decision, he or she shall notify the student of his or her decision, and instruct the director of the Office of Graduate Admissions and Records to withdraw the student. On appeal from the student, the Vice Chancellor for Student Affairs may modify the reinstatement conditions.

IV. Reinstatement

A. Reinstatement from administrative withdrawal brought under the conditions of Section I.A

1. Any student who has been administratively withdrawn under Section I.A may make arrangements with the director of the Office of Graduate Admissions and Records for the resolution of the matter. Upon such a resolution satisfactory with the director, the director shall forthwith reinstate the student to active enrollment status. The determination of whether a reinstated student shall receive credit for the period for which he or she was withdrawn shall be made by the instructor for each course involved.
2. A student who fails to resolve the matter in the semester during which he or she is withdrawn can be reinstated in a subsequent semester upon satisfaction of the administrative requirements at issue in the University's withdrawal of the student.

B. Reinstatement from administrative withdrawal brought under conditions B or C of Section I.

Any student who has been administratively withdrawn under conditions B or C shall be reinstated only upon satisfaction of the conditions established by the Administrative Withdrawal Review Committee, or by the Vice Chancellor for Student Affairs where the Vice Chancellor has changed reinstatement conditions appealed by the student.

V. Administrative Withdrawal Review Committee

The Administrative Withdrawal Review Committee shall be appointed each year by the Chancellor. The director of the Office of Graduate Admissions and Records shall not be a member of said Committee except that the director shall sit in place of a regular member in any case wherein said regular member is the administrative official recommending withdrawal. The committee shall be empowered to make decisions concerning administrative withdrawal as provided above.

All requirements for any advanced degrees to be awarded in a given degree-granting period (December, May/June, September) must be completed by the degree date. The degree application form, signed by the graduate program director, must be submitted to the Office of Graduate Admissions and Records at least 30 days before the degree date.

Detailed guidance in the preparation and completion of a program of study can be found in the graduate handbook. The typing guidelines for master's theses and doctoral dissertations contain information about the University's standard format for these requirements. Both publications are available from each graduate program director, or from the Graduate Studies Office.

Master's Degree Requirements

The basic requirements for the master's degree are given below. Students should consult the individual program descriptions for further requirements.

1. Each degree candidate must earn at least thirty graduate credits. Up to six credits may be counted from upper division undergraduate courses, with the consent of the graduate program director and the Office of Graduate Studies. See also "Transfer Credit" on page 29 of this publication.
2. The thesis and general examination may or may not be required by the graduate program, but, if required, they shall be under the supervision of a committee recommended by the program. The thesis committee will consist of members of the faculty chosen with the approval of the dean of Graduate Studies, and should be appointed as soon as possible after the student's first graduate registration. As soon as the student arrives on campus, and prior to the appointment of a thesis committee, an advisory or guidance committee should be appointed for the student from among the members of the faculty. Once the student has selected his or her thesis topic, the guidance committee may serve as the thesis committee, although the memberships of these two committees are not necessarily the same. No more than ten credits may be earned by means of a thesis.

   The thesis must be approved by all members of the thesis committee and the graduate program director, and reviewed by the dean of Graduate Studies. The general examination (not limited to the thesis) is conducted by an examining committee of at least three members of the faculty. A majority of the members of the examining committee must recommend the awarding of the degree. If a student offers a thesis, special topics courses shall be limited to six credits.

Degree Requirements

3. Foreign language requirements are determined by each master's degree program. See also "Foreign Language Requirements" on page 29 of this publication.
4. Course credits used by the student for fulfilling the requirements for a master's degree may not be used by the student for fulfilling the requirements for any other master's degree at this University.

Doctoral Degree Requirements

The doctoral degree is conferred upon graduate students who have met the following requirements:

1. Successful completion of all courses and projects specified by the student's advisor or guidance committee within the guidelines of the candidate's graduate studies program and the Office of Graduate Studies.
2. Satisfactory completion of the foreign language requirements of the candidate's graduate program. See also "Foreign Language Requirements" on page 29 of this publication.
3. Passing a preliminary comprehensive or qualifying examination conducted by the major department. Any student who fails the comprehensive examination may, at the discretion of the examining committee, be permitted a second and final examination. On successful completion of the preliminary examination the student will be admitted to candidacy.

   As soon as the student has passed the preliminary comprehensive examination and has been admitted to candidacy, the graduate program director of the candidate's program shall recommend to the dean of Graduate Studies the names of at least three members of the faculty to serve as a dissertation committee. At least two of the faculty so nominated shall be from the candidate's major department. One member shall be appointed from outside the candidate's department. The outside member shall, without exception, be a voting member of the committee. (Note: "major department" and "department" refer here to the administrative entity—e.g., the department or program—for which the degree has been authorized.)
4. Registration for the required number of dissertation credits (see "Graduate Grading Policy" on page 28 of this publication.
5. Submission of an approved dissertation prospectus to the Office of Graduate Studies prior to the final oral examination (defense of dissertation).
6. Preparation of a dissertation satisfactory to the dissertation committee and the Office of Graduate Studies.
7. Passing a final (at least partly oral) examination conducted by the dissertation committee. This examination shall be primarily concerned with, but not necessarily limited to, the candidate's dissertation. This examination shall be scheduled when all the dissertation committee members and the Office of Graduate Studies agree that the dissertation is sufficiently complete to undergo defense; approval of the dissertation, passing the defense, and/or recommending the degree are not implied by scheduling this examination.

   It shall be the responsibility of the dissertation committee to approve the dissertation project, to supervise its execution, and to arrange for the final examination of the student. All members of the committee must tentatively approve the dissertation before the final oral examination is scheduled, and agree that it is time for this examination to be held. Most programs require the student to deliver a public lecture on his or her research, usually on the day the final oral examination takes place. The final oral examination itself is attended by the candidate, the committee, and any invited guests. Only the committee members may vote, and the student can pass the final oral examination only with their unanimous approval. If, at the final examination, two members cast negative votes, the candidate will be informed that he or she has not passed the examination. If there is only one negative vote, the degree will be held up pending satisfactory resolution of the objections by the student and the dissenting member of the committee.
8. Normally, a minimum of one academic year as a full-time graduate student in residence at the University. The residence year must consist of two consecutive semesters, either a fall-spring or a spring-fall sequence. In order to qualify for full-time status, a student must be enrolled for nine or more credits per semester, either in regular graduate courses or for doctoral dissertation credits (899) or in some combination of both. To be in residence a student must be physically present on the campus for some part of each week during the semester (although the student need not reside or be domiciled in the Boston area). It is recommended that students not be employed on more than a one-half time basis during the semester, either within or outside the University.

Requirements for the Certificate of Advanced Graduate Study (CAGS)

CAGS programs provide professional development for educators beyond the master's degree level. The certificate is awarded upon completion of a cohesive 30-36-credit-hour program designed by the CAGS candidate with the approval of a faculty advisor in the area of concentration. All credits must be earned at the University. Students interested in pursuing the CAGS should be certain to contact the appropriate graduate program director.

Time Limits and Leaves of Absence

Each master's degree candidate must earn the degree within four calendar years of entering his or her degree program.

Each CAGS candidate must earn the certificate within four calendar years of entering his or her CAGS program.

Each PhD candidate must earn the degree within six calendar years of entering his or her PhD program (or four calendar years, if the student already has a master's degree in the same field).

A part-time graduate student may be granted an additional year to complete degree or certificate requirements upon petition to his or her graduate program director and approval by the Office of Graduate Studies.

A graduate student seeking a leave of absence must petition his or her graduate program director, who in turn must provide justification for the request to the dean of Graduate Studies. If the dean grants a leave of absence, the student's time limit is extended appropriately. However, any graduate student on leave of absence must maintain continuous enrollment by paying the program fee every semester during his or her leave.

Student Rights and Responsibilities

The University of Massachusetts Boston recognizes its responsibility to provide students with clear and accurate information about what is expected of them, and what their rights are, as students at UMass Boston. The documents published here should help to provide such information. Students seeking further clarification or discussion are encouraged to contact the director of the Office of Student Life.

Code of Student Conduct

Preamble

A. This Code of Student Conduct is applicable to any student enrolled in or accepted for any course or academic program, regardless of credits or competencies carried, at the University of Massachusetts Boston. Students who violate these or other regulations shall be subject to disciplinary action and the procedures described herein. These regulations are set forth to give students general notice of prohibited conduct; they should not be regarded as an exhaustive definition of misconduct or construed as a contract between the student and the University. The University reserves the right to amend any provision of this Code.

B. This Code is independent of any proceeding in civil or criminal law in which a student may also be held accountable. Disciplinary action at the University should ordinarily proceed despite the pendency of any other civil or criminal proceedings, and shall not be subject to dismissal solely because of the result of any such proceeding.

C. A student charged with misconduct under this Code shall have the rights of appeal provided herein. No sanction imposed under this Code shall be subject to a grievance or appeal under any other University procedure.

I. Academic Dishonesty and Misconduct

A. Academic dishonesty

The University defines violations of academic dishonesty to include, but not be limited to, the following:

1. Submitting an author's published or unpublished work, in whole, in part, or in paraphrase, as one's own without fully and properly crediting the author, to include submitting unattributed published work, e.g., material from a journal, newspaper, encyclopedia, etc., without proper acknowledgment.
2. Submitting as one's own original work materials obtained from an individual or agency.
3. Submitting as one's own original work material that has been produced through unacknowledged collaboration with others.
4. Using any unauthorized material during an examination, such as notes, tests, calculators, etc.
5. Obtaining answers to examination questions from another person with or without that person's knowledge; furnishing answers to examination questions to another student; using or distributing unauthorized copies of or notes from an examination.
6. Submitting as one's own an examination taken by another person; or taking an examination in another person's place.
7. Gaining or seeking to gain unauthorized access to the computer files of a student or faculty member, or staff member, or altering or destroying those files.

B. Misconduct

The University defines violations of proper conduct to include, but not to be limited to, the following:

1. Forgery, alteration, misuse, or destruction of or unauthorized access to official University records, documents, forms, or identification cards.
2. Furnishing of false or incomplete information to the University.
3. Disruptive conduct, such as any attempt to impair, interfere with, or obstruct the orderly operations of the University community, including:
   a. Obstruction or disruption of teaching, research, or other academic or administrative activities.
   b. Violence, threats of violence, disorderly, lewd, or indecent conduct on University property or at a University-sponsored or supervised function.
   c. Trespass or unauthorized entry.
   d. Unlawful assembly on University property or at a University sponsored or supervised function.
4. Theft of or damage to University property or the property of others on the University premises.
5. Possession or use on University property or at a University-sponsored or supervised function of firearms or other weapons, fireworks, or chemicals of a dangerous or explosive nature, except as specifically authorized by the Office of Public Safety.
6. Manufacture, or attempted manufacture, or use, possession or distribution of narcotic or dangerous drugs or controlled substances, including but not limited to marijuana and lysergic acid diethylamide (LSD), except as expressly permitted by law.
7. Violation of campus policies on alcohol use*.
8. Smoking or carrying lighted cigarettes, cigars, or pipes in areas posted against smoking.
9. Unauthorized possession, use, distribution, or duplication of any key or keys issued for a University building, laboratory, room, or facility.
10. Failure to comply with directives of University officials or other public officials acting in the performance of their duties. Directives must be lawful and conform to University policy and may not abridge the rights of directed individuals. Also, officials must identify themselves prior to initiating said directives to all parties involved.

*The complete text of the University's policy on alcoholic beverages is contained in the Student Handbook, which is available from the office of the Division of Student Affairs.

II. Procedures

A. In cases of alleged academic dishonesty:

1. A faculty member who suspects a student of academic dishonesty must inform the student in writing of that fact within ten school days after the discovery of the alleged violation. Having been informed of alleged academic dishonesty, the student has the right to have a member of the UMass Boston community of his or her choice (except legal counsel) present in all proceedings to act as an advocate on his or her behalf. The faculty member shall offer to meet with the student to discuss the case. No longer than ten school days after informing the student of the alleged infraction, the faculty member may impose the penalties listed below for academic dishonesty (see Section III. A). If the faculty member has not imposed a penalty within ten school days after having informed the student, the charges shall be considered dismissed.

2. Within ten school days after the imposition of a penalty or penalties, the student may submit an appeal in writing to the faculty member's departmental chair or program head. The chair/program director is encouraged to consult with the faculty member and the student. The student may request a hearing before the departmental chair or program head if the problem is not resolved through consultation. The student shall have the right to be accompanied at such hearing by a member of the University of his or her choice (except legal counsel) to act as an advocate on the student's behalf. The student (or advocate) shall have the right to present evidence and witnesses and to cross-examine other witnesses. Formal rules of evidence shall not be observed; any evidence having reasonably probative value as to a relevant fact may be admitted. No longer than ten school days after the hearing, the chair/program head shall make findings of fact and shall uphold or recommend modifications of the faculty member's decision, but may not him/herself reverse or modify that decision.
3. Within ten school days after the chair/program head's action, the student may submit an appeal in writing to the dean or administrative head of the faculty member's college or other administrative unit. The dean/administrative unit head is encouraged to consult with the chair/program head, faculty member, and student. No longer than fifteen school days after the request for an appeal, the dean/administrative unit head shall uphold, reverse, or modify the decision of the faculty member. Such modifications may include the imposition of penalties beyond those within the faculty member's purview, including any of the penalties for misconduct (see Section III. B).
4. Within ten school days after the dean/administrative unit head's action, the student may submit an appeal in writing to the Vice Chancellor for Academic Affairs. The Vice Chancellor for Academic Affairs will instruct the Discipline and Grievance Committee to conduct an investigation of the case and to report its findings to him/her within thirty school days after the request for an appeal. No longer than fifteen school days after the report of the Discipline and Grievance Committee, the Vice Chancellor for Academic Affairs shall uphold, reverse, or modify the dean/administrative unit head's decision. Such modifications may include any of the penalties for misconduct (see Section III. B).
5. Within ten school days after the Vice Chancellor for Academic Affairs' action, the student may submit an appeal in writing to the Chancellor. No longer than twenty school days after the request for an appeal, the Chancellor shall uphold, reverse, or modify the Vice Chancellor for Academic Affairs' decision. Such modifications may include any of the penalties for misconduct (see Section III. B). The decision of the Chancellor shall constitute final University disposition of the matter.
6. Failure of the relevant official to render a decision on any appeal submitted pursuant to paragraphs 2 through 5 within the time limits set forth therein shall be considered an affirmation of the penalty and the student shall thereupon be entitled to proceed to the next level of appeal, if any.

B. In cases of alleged student misconduct:
   1. All cases of alleged student misconduct shall be referred in writing to the Associate Vice Chancellor for Student Affairs for investigation. Within ten days of the initial referral, the Associate Vice Chancellor for Student Affairs will give written notice to the student accused of misconduct of the charges being brought, including a description of the acts complained of, the time and place if known, and a summary of the information upon which the charges are based. Within ten school days of receipt of written notice, the student may request a hearing before the Associate Vice Chancellor for Student Affairs. The student shall have the right to be accompanied at such hearing by a member of the University community of his or her choice (except legal counsel) to act as an advocate on the student's behalf. (However, a student charged with conduct that is also the subject of pending criminal proceedings shall in any hearing have the right to the presence of legal counsel for advice; this right shall not include participation of counsel in the hearing.) The student (or advocate) shall have the right to present evidence and witnesses and to cross-examine other witnesses. Formal rules of evidence shall not be observed; any evidence having reasonably probative value as to a relevant fact may be admitted. No longer than thirty school days after notifying the student of the charges, the Associate Vice Chancellor for Student Affairs shall consult with the student and determine whether misconduct has occurred. In cases of misconduct, the Associate Vice Chancellor for Student Affairs may impose the penalties for misconduct listed below (see Section III. B).

Student Rights and Responsibilities

2. Within ten school days after the action of the Associate Vice Chancellor for Student Affairs, the student may submit an appeal in writing to the Vice Chancellor for Student Affairs. The Vice Chancellor for Student Affairs will instruct the Discipline and Grievance Committee to conduct an investigation of the case and to submit its finding to him/her within thirty school days after the request for an appeal. No longer than fifteen school days after the report of the Discipline and Grievance Committee, the Vice Chancellor for Student Affairs will uphold, reverse, or modify the decision of the Associate Vice Chancellor for Student Affairs.
3. Within ten school days after the Vice Chancellor for Student Affairs' decision, the student may submit an appeal in writing to the Chancellor. No longer than twenty school days after the request for an appeal, the chancellor shall uphold, reverse, or modify the Vice Chancellor for Student Affairs' decision. The decision of the Chancellor shall constitute final University disposition of the matter.

III. Sanctions

A. In cases of academic dishonesty, sanctions to be imposed by faculty members shall be one or more of the following:
   1. Failure in the assignment in which the infraction occurred.
   2. Failure in the course in which the infraction occurred.
   3. Failure in the certification of competency in the area in which the infraction occurred.

   In addition, the faculty member, in cases in which academic dishonesty has been repeated, or is of an especially serious nature, may recommend to his or her dean/administrative unit head the imposition of additional penalties including those for misconduct (see Section III.B).

B. In cases of student misconduct, sanctions to be imposed shall be one or more of the following:
   1. Oral Admonition: The lightest form of disciplinary action.
   2. Disciplinary Reprimand: An official written notice to a student that his or her conduct is in violation of University rules or regulations and will not be tolerated.
   3. Disciplinary Probation: A more severe sanction than a reprimand. For the duration of a stated probationary period, the student must demonstrate willingness to comply with University rules or regulations or other stipulated conditions or requirements, which may include (but are not limited to) forfeiture of the privilege of participation in club or team activities or other University-based extracurricular activities.
   4. Suspension from the University: Withdrawal from all divisions of the University for a period of time no shorter than the remainder of the semester in progress at the time the sanction is imposed. The period of time for which a suspension will be effective must be stated in writing to the student at the time of its imposition.
   5. Expulsion from the University: Permanent separation from the University. An expelled student may not be readmitted to any of the University's academic units.
   6. Restitution: The assessment of financial charges or other forms of recompense for any damage or loss incurred by the University or any member of the University community.

   In addition to the sanctions for misconduct listed above, the Associate Vice Chancellor for Student Affairs, Vice Chancellor for Student Affairs, or Chancellor when appropriate may require the student to seek counseling as a condition of being allowed to remain at the University. The case may also be referred to state or federal authorities.

   In any instance where the continued presence of an individual on campus may pose a threat to his or her own well-being or to the rights or property of the University community, the Associate Vice Chancellor for Student Affairs may impose an interim suspension. This action is designed to prohibit the presence of the student on campus until the case can be resolved in accordance with prescribed campus procedures. This interim suspension is not entered on a student's record and does not affect the student's status except as described above.

Student Right to Review University Records

Educational Rights and Privacy Act

In accordance with Public Law 93-38, the University wishes to inform all UMass Boston students of their rights to review their education records on file at the University.

This Act sets forth requirements designed to protect the privacy of parents and students with regard to access, review or release of records maintained by educational institutions.

The Act permits current or former students to review the following documents: permanent academic record, admissions, financial, placement, veteran's, counseling, advising and disciplinary records.

Access to these records may also be granted to faculty and staff, parents of a student listed as a dependent on Federal Income Tax returns, authorized federal or state officials auditing education programs, and accrediting associations.

Any UMass Boston graduate student wishing to examine his or her education record should so request one of the following offices directly:
Graduate Studies
Financial Aid Services
Health Service
Graduate Admissions and Records

The following records may not be examined: parents' financial records, medical, psychiatric or psychological records, personal files of faculty or administrative personnel, law enforcement records held by law enforcement officials.

Directory information may be released to third parties without the written consent of the student, provided the student has been given the opportunity to withhold all such disclosure. Directory information includes: the student's name, address, telephone listing, date and place of birth, major field of study, dates of attendance, degrees and awards conferred.

Procedure for gaining access to records: a request by a student for access to a record is made in writing to the office which maintains the record. Within 45 days the office must inform the student when the record will be available. Every office is also obliged to tell students, at their request, who else has had access to their record and why.

The academic record is the only permanent record and is maintained in perpetuity. Medical records are retained by the University Health Service for 30 years.

If a student requests a copy of any part of his or her education record, either for personal use or for release to a third party, the student shall incur the cost of copying not to exceed $5.00.

Student Rights and Responsibilities

Any questions and/or challenges concerning these matters should be addressed to the Division of Student Affairs, Administration Building, Third Floor.

Graduate Student Grievance Procedure

A *grievance* is defined as a complaint by a currently enrolled graduate student(s) alleging that some member(s) of the University community has unjustly caused the student(s) to suffer some specific harm related to a matter within the authority of the dean of Graduate Studies. Matters of academic judgment, or matters that come under other existing University policies and regulations are NOT considered grievances under this procedure. In addition, grievances which have been brought to a hearing under other University grievance procedures cannot be brought to a hearing under this procedure. Every attempt should be made by the parties involved to resolve the complaint informally. For the purpose of this procedure all days are working days. The time limitations may be extended by the parties by mutual agreement.

I. Informal Conciliation

A. Within 15 days of the event that precipitates the grievance, the grievant shall inform the University faculty, staff member (hereafter known as the respondent), graduate program director or designee of his or her complaint and shall discuss it with him/her. Each party shall endeavor in good faith to clear up all misunderstandings and disagreements that may have risen.

B. If the two parties are unable to reach a settlement, they shall meet with the graduate program director to discuss the matter. The latter shall make his or her best effort to resolve the grievance. This meeting must occur within 10 days of the notification cited in I.A. (If the graduate program director is a party to the grievance, the department chairperson shall perform the function described. Where there is no department chairperson or the department chairperson is the graduate program director, the dean of Graduate Studies will appoint the person to perform the function described.)

II. Formal Conciliation

A. Should the informal conciliation process fail, the grievant may submit to the dean of Graduate Studies within 10 days of the time the grievant is informed of the outcome of the informal conciliation process cited in Section I a detailed but concise written statement of his/ her grievance. The statement shall (1) identify grievant and respondent, (2) present the particulars of the case specifying both the harm allegedly suffered and the alleged cause thereof, (3) indicate the relief sought, and (4) describe the dates, times, forms, and results of the discussions held under the informal conciliation procedures.

   If this statement is not submitted to the dean of Graduate Studies within these 10 days of the event the grievance shall be considered terminated. In any event, the University member named as the respondent will be notified of the grievance.

B. Upon receipt of the grievance in II.A, the dean of Graduate Studies shall then arrange for the creation of an ad *hoc* Grievance Committee (hereinafter "the committee") to conduct a hearing on the matter and to report to him/her as described below. This Committee shall be selected within 10 days of the dean of Graduate Studies receiving the written grievance, and shall consist of three disinterested current members of the University faculty, staff, or graduate student bodies, as follows:

   1. one person to be chosen by the grievant
   2. one person to be chosen by the respondent
   3. a Chairperson to be chosen jointly by the persons named to the committee under (1) and (2) above; or if no such person can be agreed upon, to be chosen by the dean of Graduate Studies.

C. Once the committee is selected, the dean of Graduate Studies or his/her designee will convene the committee and act as the facilitator. The committee has 15 days to meet and report to the dean. At this initial meeting the committee will develop its own guidelines and procedures to best resolve the grievance. All parties to the grievance will be notified as to the time and place of the meeting at which the committee will deal with the grievance. At the same time the parties shall be informed that they may, if they wish, make statements to the committee at the time of the meeting. They may also suggest witnesses who will be interviewed by the committee. Legal counsel for the parties will not attend the meetings called for in this procedure. The proceedings may be taped. The committee may proceed and make its findings and decisions even in the absence of any person who fails to appear. The committee may not base its findings or decision on the fact that a person fails to appear. The committee may grant a postponement to either party for good cause.

D. At the conclusion of the 15 days, the committee will issue a signed report to the dean of Graduate Studies which will include its findings as well as its recommendations. Both the findings and recommendations will be arrived at by a majority vote. Upon review and acceptance or denial of the report by the dean of Graduate Studies, copies of the dean's decision will be sent, via certified mail, to the grievant and the respondent.

E. Upon receipt of the accepted report and its recommendation(s), if the recommendation(s) of the committee is not acceptable to the grievant, the respondent, or the dean of Graduate Studies, they may within 10 days submit a written appeal to the Provost. If an appeal is submitted, the Provost will review all the materials and render a ruling within 10 days from the receipt of the appeal. The Provost's ruling may accept, reject, or modify the recommendations of the committee. Copies of the Provost's ruling will be sent to those who received copies of the committee's report, as well as to committee members. The Provost's ruling is final.

Student Rights and Responsibilities

III. This procedure will be deemed to have been exhausted once the ruling of the Provost has been rendered.

Student Rights and Responsibilities in Connection with Financial Aid

1. Students are expected to be prompt in applying for aid and in ensuring that support documentation is forwarded in a timely manner to the Office of Financial Aid Services. It is strongly suggested that students plan early.
2. Each student has a right to expect confidentiality and professionalism in the handling of his or her application for financial aid. This right is carefully protected by t he staff of the Office of Financial Aid Services.
3. All students have the right to see all materials held in their folders within the Office of Financial Aid Services (the exception is the parent's confidential financial information, if the parent(s) or guardian(s) have specifically prohibited disclosure to the student). To do this, a student must meet with a Financial Aid Counselor. Members of the Office of Financial Aid Services staff, in exercising their responsibilities, also have the right to see a student applicant's folder. No other person has this right.
4. Every student has a right to a timely review and award notice, assuming the student has met the stated deadlines and requirements of the Office of Financial Aid Services.
5. Every student has the right to review his or her case with a professional counselor in the Office of Financial Aid Services.
6. If a student, after such review, remains unsatisfied with the analysis of need and the award of aid, he or she has the right to appeal to the director of Financial Aid Services, the Financial Aid Advisory Committee, and ultimately the dean of Enrollment Services.
7. It is the responsibility of students and parents to provide all data requested, honestly and completely. Falsification of records or withholding of information pertinent to a decision about aid may result in University action or, in cases where federal funds are extended, in penalties of law.
8. It is the responsibility of students to read all information carefully and completely, and to comply with the stated instructions at all times. Failure to do so will delay awards and may cause students to lose awards.
9. Every student is expected to comply with all laws and policies governing aid. This is particularly important in the area of academic enrollment: a fully-aided undergraduate student is expected to carry no fewer than twelve credit hours, or the equivalent, and a fully-aided graduate student is expected to carry no fewer than nine credit hours, or the equivalent. Each student is expected to attend classes and progress satisfactorily toward his or her degree.
10. All students must present their UMass Boston identification cards when picking up checks, obtaining confidential information, and keeping appointments with financial aid counselors. There will be no exceptions to this policy.

Student Right to Excused Absence Because of Religious Belief

An Act Excusing the Absence of Students for Their Religious Beliefs

In accordance with Chapter 151C, Section 2B of the General Laws of Massachusetts, the University wishes to inform students of their rights under this legislative provision of the Commonwealth of Massachusetts. This section states:

Any student in an educational or vocational training institution, other than a religious or denominational educational or vocational training institution, who is unable, because of his religious beliefs, to attend classes or to participate in any examination, study, or work requirement on a particular day shall be excused from any such examination or study, or work requirement, and shall be provided with an opportunity to make up such examination, study or work requirement which he may have missed because of such absence on any particular day; provided, however, that such makeup examination or work shall not create an unreasonable burden upon such school. No fees of any kind shall be charged by the institution for making available to the said student such opportunity. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section.

University Policies on Affirmative Action and Sexual Harassment

Affirmative Action

Pursuant to Title VII of the Civil Rights Act of 1964 and Title IX of the Educational Amendments of 1972 and other applicable Federal and State laws, the University reaffirms its commitment to a policy of non-discrimination and affirmative action.

Equal Employment Opportunity: The University pledges to make all decisions regarding recruitment, hiring, promotion, and all other terms and conditions of employment without discrimination on the grounds of race, color, religion, sex, national origin, age, disability, sexual orientation, or other factors which cannot lawfully be the basis for an employment decision.

Any questions concerning this policy should be referred to the director of Affirmative Action.

Sexual Harassment

Sexual harassment is unwanted sexual attention. As a form of sex discrimination, sexual harassment is a violation of federal and state law. It is the policy of the University of Massachusetts that no member of the University community may sexually harass another. For purposes of this policy and consistent with federal regulations, sexual harassment is defined as follows:

Unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of sexual nature constitute sexual harassment when: 1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or academic work, 2) submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting such individual, or 3) such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive working or academic environment.

It is the policy of the University to protect the rights of all persons within the University community by providing fair and impartial investigations of all complaints brought to the attention of appropriate officials. Any member of the University community found to have violated this sexual harassment policy may be subject to disciplinary action.

Any student or employee who believes that he or she is a victim of discrimination should contact the director of Affirmative Action, at 287-5180.

Graduate Programs

American Studies (MA)

Faculty

Thomas Buckley (American Studies Program, Anthropology Department), PhD, *University of Chicago* •Linguistic and Cultural Anthropology •Native American Studies •History of Social Thought

Jonathan Chu (History Department), MSL, Yale Law School, PhD, *University of Washington* •Colonial America •the American Revolution •American Legal History

Linda Dittmar (English Department), PhD, *Stanford University* •Feminist Theory and Narrative •Film Studies

Louis Ferleger (Economics Department), PhD, *Temple University* •Technology, Culture, and US History •Economic History •Southern History •Economics and Literature

Reebee Garofalo (College of Public and Community Service), EdD, *Harvard University* •History of Popular Music •Race and Popular Music

Edwin Gittleman (English Department), PhD, *Columbia University* •Colonial and Romantic American Literature •Civil War Culture

James Green (Labor Studies Program), PhD, *Yale University* •Labor Studies •Public History •American History

Jean Humez (Women's Studies Program), PhD, *Yale University* •Women's Studies •American Literature •Social History

Peter Kiang (American Studies Program, Graduate College of Education), EdD, *Harvard University* •Asian-American Studies •Multicultural Education

Esther Kingston-Mann (American Studies Program, History Department), PhD, *Johns Hopkins University* •US-Russia Relations •Comparative Society and Culture •Issues in US Diversity

Kibibi Mack-Williams (Black Studies), PhD, *State University of New York at Binghamton* •African-American History •African-American Women's History

Sherry H Penney (Chancellor), PhD, *State University of New York at Albany* •19th Century Reform •Leadership in the 19th Century

Sheila Post-Lauria (English Department), PhD, *University of Chicago* •American Literature •American Culture •Native American Culture •Women's Literature

Martin Quitt (History Department), PhD, *Washington University* •Early American History •Family History •Political Culture •Ethnohistory

Lois Rudnick (American Studies Program, English Department), PhD, *Brown University* •Social and Cultural History •Immigration •American Literature •Modernism

Elizabeth Sherman (Program for Women in Politics and Government), PhD, *Boston College* •Women and Public Policy •Political Economy •Social Economy and Social Justice

Charles Shively, (American Studies Program) PhD, *Harvard University* •Intellectual History •Social and Cultural History •Mexican History •Lesbian and Gay Studies

Timothy Sieber (Anthropology Department), PhD, *New York University* •Community Studies •Socialization and Education •Urban Anthropology •Urban Public Culture •Multiculturalism

Judith E Smith (American Studies Program) PhD, *Brown University* •US Social and Cultural History •Ethnicity and Immigration •Women's History •Urban History •Cultural Studies

Paul Watanabe (Asian-American Institute, Political Science Department), PhD, *Harvard University* •American Foreign Policy •Political Behavior •Ethnic Group Politics

Julie Winch (Black Studies Department, History Department), PhD, *Bryn Mawr College* •African-American History •Race and Gender Studies

The Program

The Master of Arts Program in American Studies serves

- students interested in the study of historically contested meanings of culture, community, democracy, citizenship, politics, race, ethnicity, gender and sexuality in the United States;
- continuing and returning students seeking further grounding in American Studies and its interdisciplinary methods;
- professionals in education and government;
- journalists, community leaders, and organizers searching for a historical and cultural understanding of their own society.

The program provides the intellectual tools and theoretical background in historical and cultural analysis that will enable students to reflect critically on historical changes and controversies in the US, with special attention to how these have been shaped by difference and commonalities and through the interaction of cultures.

Degree Requirements

Candidates for the MA degree in American Studies must satisfactorily complete 30 credits of graduate work, including a final project (AmSt 698, 3 credits) based on original research. Students may choose to do a traditional MA thesis (6 credits) in lieu of a final project. This is a more substantial piece of original research, prepared under the guidance of an individual faculty advisor, and must be defended before a committee of three faculty members.

The curriculum is built around a core of six three-credit courses:

- AmSt 601 (Introduction to American Studies)
- AmSt 602 (Historical Sequence I: American Society and Political Culture: 1600-1865)
- AmSt 603 (Historical Sequence II: Modern Political, Social, and Cultural History)
- AmSt 604 (Gender and Sexuality in US History and Culture)
- AmSt 605 (Ethnicity, Race, and Nationality)
- AmSt 606 (Studies in Popular Culture and Technology)

Elective courses may be drawn from additional graduate and advanced undergraduate courses in American studies, anthropology, English, women's studies, black studies, politics, history, and public policy.

Admission Requirements

Please see the general statement of admission requirements for all programs on page 9 of this publication.

The American Studies Admissions Committee will recommend admission to the program to those applicants who present evidence of their ability and appropriate preparation to do graduate work in American studies. Such evidence will include:

1. A distinguished undergraduate transcript with generally at least an average of B or 3.0 in appropriate courses such as those in American studies, ethnic studies, US history, US literature, women's studies.
2. The submission of Graduate Record Examination aptitude scores (verbal and mathematical) which is highly recommended, though not required.

American Studies

3. Substantive recommendations from former teachers familiar with the applicant's most recent academic work. An applicant who has been out of school for a number of years and for whom this kind of recommendation is impracticable should speak with the program director about submitting other recommendations.
4. A writing sample, demonstrating analytic ability in fields relevant to American studies (historical, literary or social analysis). When possible, this writing sample should demonstrate the use of primary sources. An applicant who has been out of school for a number of years and for whom this kind of sample is not readily accessible should speak with the program director about a substitute for this writing sample.

Research Institutes

The William Monroe Trotter Institute for the Study of Black Culture, The Mauricio Gaston Institute for Latino Community Development and Public Policy, the Asian-American Institute, and the Center for Women in Politics and Public Policy all sponsor ongoing research which may offer special opportunities for graduate student research experience.

American Studies Summer Institute

A cooperative venture of the John F Kennedy Library and the American Studies Program with support from the Lowell Institute, this intensive two week summer course is offered (as AmSt 697, 3 credits) over a two-week period. Topics vary from year to year and the course can be taken more than once. It is designed to appeal to teachers and citizen activists outside the American Studies Program as well as to matriculated students within the program. The course serves as an elective for those seeking the MA degree, and either graduate standing or the permission of the instructor is required.

Women in Politics and Government Graduate Certificate Program

The Program for Women in Politics and Government is offered through the American Studies Program in affiliation with the University's Division of Continuing Education and John W McCormack Institute for Public Affairs. Its aim is to help educate and train women of the Commonwealth for greater political participation, service, and leadership. For complete information, see the Women in Politics and Government section on page 148 of this publication.

Courses

AmSt 601
Introduction to American Studies
This course focuses on interdisciplinary methods by comparing the ways different disciplines approach the study of American culture. It introduces students to the history of American Studies as a field, to the questions explored in greater depth in the other core courses, and to contemporary intellectual debates within the field. Readings are chosen to enable students to compare the questions asked and the methods and evidence used by scholars in the fields of social and cultural history, literary criticism, the new historicism, and cultural studies.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Smith

AmSt L602 (Hist L602)
Historical Sequence I: American Society and Political Culture: 1600-1865
The course follows the evolution of American society and political culture from the colonial period to the Civil War. The concept "political culture," as used here, embraces institutions, public behavior, and above all, attitudes—beliefs, values, expectations, fears—regarding the distribution and exercise of political power. Two momentous events, the wars for independence and union, are major course milestones at which the development of political culture is assessed from the perspective of different social groups, including leaders, artists, writers, women, workers, and slaves. A central theme is the interplay between regional divergences and national convergences. Thematic questions running through the course are: Did a common political culture emerge? Who was included, who excluded? Was American political culture distinctive?
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Quitt

AmSt 603
Historical Sequence II: Modern Political, Social, and Cultural History
This course focuses on the emergence of modern American society, culture, and politics from the post-Civil War era through the Great Depression, with emphasis on the following topics: the ideologies of modernism, progressivism, and socialism, and the political, economic, and social forces that constitute modernity; innovations in politics, the arts, and the social sciences, and their relationship to new technologies and the labor practices of industrial capitalism; the labor movement's struggle for industrial democracy; the emergence of feminism and civil rights.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Rudnick

AmSt 604
Gender and Sexuality in US History and Culture
This course explores the historical construction of gender and sexuality in US social and political culture of different eras, through current historical scholarship, primary documents, and such cultural representations as literature or film. How are conceptions of manhood and womanhood, of heterosexuality and "deviant" sexualities, shaped and reshaped in response to historical forces, and linked to concepts of race and class? How are dominant definitions contested?
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Humez

AmSt 605
Ethnicity, Race, and Nationality
This course explores the construction and maintenance of ethnic, racial, and national identities in the United States in the 19th or 20th centuries. Students draw on interdisciplinary readings in anthropology, art, history, literature, popular culture, religion, sociology, and other fields. They learn to analyze various types of texts containing implicit and explicit expressions of ethnic, regional, and national identities. Case studies furnish material to examine the construction and maintenance of a national identity and to give students experience in the methods and approaches used in American studies.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Shively

AmSt 606
Studies in Popular Culture and Technology
This course focuses on changing definitions of culture and methods of cultural studies; the changing meanings of "folk culture, "mass culture," and "popular culture;" and the changing dynamics among technology, the media, and culture. Topics for readings and discussion may include: the relations between changing technologies and the activity of audiences in shaping commercial popular culture; the social and economic context of technological innovation; the cultural imperatives of technological change.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits

American Studies

AmSt 621
Contemporary American Public Policy Issues
Fall seminar in Program for Women in Politics and Government. This course provides an overview of the policy-making process and electoral politics; then examines several central public policy issues of contemporary concern, including homelessness and poverty, health, and environmental issues. Readings from the disciplines of sociology and political science analyze how public policy is shaped both by internal processes of government, and by interest group dynamics.
Prerequisite: Admission to the Program for Women in Politics and Government, or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Sherman and Staff

AmSt 622
Fall Internship in Program for Women in Politics and Government
In close consultation with the instructor, students develop and begin to work at an internship placement in a city, state, or federal government agency, or in a lobbying or research organization whose work is directly related to public policy and government. Interns spend 16-20 hours per week in the placement, keeping a record of work activities and skills development, and meet regularly with the instructor to discuss the progress of their internship placement.
Prerequisite: Admission to the Program for Women in Politics and Government.
3 Lect Hrs, 3 Credits
Ms Sherman and Staff

AmSt 623
Women in American Politics and Policy Making
Spring seminar in Program for Women in Politics and Government. This course explores how politics and government affect American women's lives today, and examines the ways that women participate in the political process in order to influence the course of public policy. Readings bridge the disciplinary perspectives of sociology and political science; newer feminist theoretical perspectives on public policy issues are included.
Prerequisites: Admission to the Program for Women in Politics and Government, or permission of instructor; AmSt 621.
3 Lect Hrs, 3 Credits
Ms Sherman and Staff

AmSt 624
Spring Internship in the Program for Women in Politics and Government
The internship placement begun in the fall is completed, and evaluated. Students prepare an internship assessment paper and an oral report on the internship experience for presentation in AmSt 623.
Prerequisites: Admission to the Program for Women in Politics and Government and AmSt 622.
3 Lect Hrs, 3 Credits
Ms Sherman and Staff

AmSt 625
Case Study for Program for Women in Politics and Government
The case study provides an opportunity for students to design and complete a substantial research paper, analyzing in detail one example of public sector decision-making, and integrating theoretical perspectives from the seminars. In close consultation with the instructor, students choose a controversial policy decision/area in which they wish to develop expertise—often these topics are related to the student's internship placement. Oral presentations from the case studies are presented in the spring seminar, AmSt 623.
Prerequisites: Admission to the Program for Women in Politics and Government; AmSt 622, 626.
3 Lect Hrs, 3 Credits

AmSt 626
Case Study Methodology for Policy Analysis
This course is required preparation for AmSt 625. The first part of the course focuses on the political and economic context in which policy disputes are raised and resolved through various political processes. Subsequent course work examines policy conflicts with emphasis on relative strengths and weaknesses of contending political forces. Students complete a case study exercise based on readings, library research, and interviews that concentrate on a contemporary public policy controversy. (Course offered in the fall only.)
Prerequisite: Admission to the Program for Women in Politics and Government.
3 Lect Hrs, 3 Credits

AmSt L675 (Anth L675)
Cultural Theory in Anthropology
This course surveys twentieth century sociocultural theory, providing students in historical archeology, American studies, and other disciplines with a complementary background in cultural anthropology. The emphasis is on American anthropologists, their theories of culture and the attention these theories give to history, and the discursive contexts within which these various theories have emerged.
3 Lect Hrs, 3 Credits
Mr Buckley

AmSt 690
Seminar in American Studies
An advanced course in interdisciplinary research on selected topics relating to American history and culture.
Prerequisite: Graduate standing.
3 Disc Hrs, 3 Credits

AmSt 695
Independent Study
An advanced course of independent reading in some aspect of American history or culture with the approval of the instructor and the director of the graduate program.
Prerequisite: Graduate Standing
Hrs to be arranged, 3 Credits

AmSt 696
Independent Study
See AmSt 695.

AmSt 697
Special Topics in American Studies
An advanced course offering intensive study of selected topics in American studies, presented in conjunction with the John F Kennedy Library. Course content varies according to the topic and will be announced prior to registration. This course may be repeated. For more information, see "American Studies Summer Institute" on p. 40 of this publication.
Prerequisite: Graduate standing or the permission of the Instructor
3 Lect Hrs, 3 Credits

AmSt 698
Final Project
A substantial research paper, drawing on systematic original research. The project may address a research topic in American studies or may construct a curriculum unit using primary sources and including a pedagogical and intellectual justification. The project will be determined in consultation with the student's advisor and must be approved by the advisor and at least one other faculty member involved in the program. A written proposal signed by student and advisor must be submitted to the director of the graduate program. Depending on faculty availability, students enrolled in AmSt 698 during the spring semester can participate in a research and writing seminar to facilitate the completion of final projects.
3 Credits

Bilingual Education Program (MA)
English as a Second Language Studies Program (MA)

Faculty

Elsa Auerbach (English Department), PhD, *Northwestern University* •Linguistics •Reading •Literacy and Second Language Teaching

Neal Bruss (English Department), PhD, *University of Michigan* •English Language •Semiotics

Salazar Ferro (College of Public and Community Service), PhD, *University of Coimbra,* EdD, Boston University •Applied Mathematics •Bilingual and Mathematics Education

Donaldo Macedo (English Department), EdD, PhD, *Boston University* •Applied Psycholinguistics •Second Language Acquisition •Second Language Teaching Methodology •Language Behavior

Charles Meyer (English Department), PhD, *University of Wisconsin* •Linguistics •History of English

Candace Mitchell (English Department), PhD, *Boston University* •Applied Linguistics •Literacy •Cross-Cultural Communication

Marc Prou (English Department), EdD, *University of Massachusetts Amherst* •Cultural Diversity and Curriculum Development •Multiculturalism •Bilingual Education

Nancy Smith-Hefner (English Department), PhD, *University of Michigan* •Linguistics •Sociolinguistics •Language and Culture

R Timothy Sieber (Anthropology Department), PhD, *New York University* •Urban Anthropology •Anthropology of Education •Ethnicity

Vivian Zamel (English Department), PhD, *Columbia University* •ESL Writing Theory •ESL Classroom Methodology •Classroom Observation

The Programs in Bilingual Education and ESL Studies

These programs are designed to provide preservice training and in-service enrichment for teachers instructing limited English proficient students at the elementary, secondary, or university level, or in adult education programs. Courses are offered in basic theoretical linguistics, applied linguistics of English and target languages, and the interdisciplinary areas of psycholinguistics and sociolinguistics. There are also offerings in cross-cultural relationships and the process of acculturation, second language teaching methodology, and first language maintenance. The programs combine on-campus classroom work with on-site experience in ESL (English as a Second Language) and bilingual classrooms. The programs also offer a concentration in computer-assisted instruction, with courses focusing on the development and implementation of CAI (Computer Assisted Instruction) for limited English proficient students.

All courses in both programs are offered in the evening. Either program can be completed in a minimum of two years; the programs are open to students wishing to attend on a full-time or part-time basis.

Bilingual Special Education

Students interested in bilingual special education should matriculate into the Special Education Program, where they can incorporate several Bilingual/ESL Studies courses into that degree program and into a bilingual special education practicum. Further information may be obtained from the graduate program director of the Special Education Program.

Degree Requirements

Thirty credits of graduate course work and a comprehensive examination are required of all candidates. The course work has three components:

1. Four core courses required of both bilingual and ESL students: BES 620 (Linguistics and Contrastive Analysis); BES 621 (Psycholinguistics); BES 622 (Cross-Cultural Perspectives); and BES 623 (Sociolinguistics).
2. Either a bilingual component or an ESL component of at least 12 credits.
3. Related courses (maximum of 6 credits). Students in the bilingual program are encouraged to elect courses from the ESL component. ESL students who plan to work in bilingual programs are urged to elect bilingual courses. With the director's prior approval, students may also elect graduate courses in English, critical and creative thinking, school psychology, and related fields.

The comprehensive examination is taken by all degree candidates during their final semester. Students should consult the program director for details.

Independent Study

During their final semester, students may elect independent study with a member of the faculty. Under special circumstances, advanced students may take independent study before their last semester.

Practicum

The practicum is required of all students who have had no on-site teaching experience (paid teaching, supervised student teaching, supervised teaching in an adult social or educational agency). This requirement can be satisfied through teaching in University undergraduate ESL classes, in a public school system, or at a community agency.

Certification

In conjunction with master's degree studies in any UMass Boston graduate program, students may pursue Massachusetts teacher certification at the elementary or secondary levels in either bilingual education or teaching English as a second language.

Admission Requirements

Please see the general statement of admission requirements for all programs on page 9 of this publication.

Special Admission Requirements for Candidates for the MA in Bilingual Education

1. Candidates must indicate non-native proficiency in a bilingual target language.
2. Native speakers of a language other than English must submit a minimum TOEFL score of 575.

Special Admission Requirements for Candidates for the MA in English as a Second Language

1. Candidates must indicate proficiency in a language other than English at a level equivalent to two years of successful college study.
2. Candidates must demonstrate evidence of general knowledge of English literature, American literature, and American culture. This requirement may be satisfied by indicating suitable undergraduate credits in English, history, political science, and other relevant disciplines.
3. Non-native speakers of English must submit a minimum TOEFL score of 575.

Bilingual/ESL Studies

Courses

BES 620
Linguistics and Contrastive Analysis
The nature and origin of language. The history of linguistics and its new theoretical developments. Principles of language analysis: phonology, morphology, and syntax. A systematic comparison of English structures with those of Capeverdean, French, Portuguese, and Spanish.
3 Lect Hrs, 3 Credits
Mr Meyer, Ms Mitchell, Ms Smith-Hefner

BES 621
Psycholinguistics
Contemporary issues and development in the field of psycholinguistics, including theories of language acquisition, the learnability of languages, and the relationships that exist between the acquisition of a first language and a second language.
3 Lect Hrs, 3 Credits
Mr Macedo, Ms Smith-Hefner

BES 622
Cross-Cultural Perspectives
This course is designed to help students use a knowledge of the concepts and meanings of culture in developing their perceptions of cultural similarities and differences. Special emphasis is given to issues of linguistic and cultural discontinuities, the acculturation process, minority education, and inter-ethnic communication. Discussions and research are directed toward developing multicultural educational programs and activities.
3 Lect Hrs, 3 Credits
Ms Mitchell, Ms Smith-Hefner

BES 623
Sociolinguistics
This course focuses on the study of language variation, and its social, political, and cultural significance. Students evaluate current theory and research in sociolinguistics, and conduct small research projects of their own. Topics include language attitudes, language identity, and language power.
3 Lect Hrs, 3 Credits
Mr Macedo

BES 640
Methods and Materials in Bilingual Education
Examination of major contemporary theories of learning in bilingual education. Focus on instructional improvement strategies, objectives and procedures of evaluation, as they relate to the developmental needs of elementary and secondary bilingual students. Prospective teachers acquire an understanding of the process of selection, adaptation, and development of instructional materials.
3 Lect Hrs, 3 Credits
Mr Prou

BES 641
Foundations of Bilingual/Multicultural Education
The rationale for bilingual education and its typology, with a survey of some successful Massachusetts programs. Special consideration is given to the provisions of Title VII and the Massachusetts Transitional Bilingual Education Law.
3 Lect Hrs, 3 Credits
Mr Prou

BES 642
Curriculum Development in Bilingual Education
Analysis of the major components of curriculum study including practices, innovations, positions, and theories as applied to bilingual schools.
3 Lect Hrs, 3 Credits
Mr Prou

BES 643
The Bilingual Child with Special Needs
Students in this course become familiar with the various types of testing needed for bilingual special needs children. The course surveys existing tests in intelligence, academic achievement, and language development, as well as post-test remediation and therapy.
3 Lect Hrs, 3 Credits
Mr Prou

BES 644
Capeverdean Linguistics
A systematic analysis of the phonology, morphology, and syntax of Capeverdean. A diachronic analysis focusing on the historical, cultural and sociopolitical factors which played a significant role in the pidginization and creolization of the Capeverdean language.
3 Lect Hrs, 3 Credits
Mr Macedo

BES 645
Franco-American Linguistics
A thorough study of differences and similarities in the linguistic structures of Franco-American and universal French, regional and social variations in the linguistic structure of Franco-American speech, and discrimination between levels of language acceptability in Franco-American speech.
3 Lect Hrs, 3 Credits

BES 646
Haitian Linguistics
A contrastive analysis of the Haitian language and English. A study of Haitian phonology, syntax, semantics and morphology, contrasted with French and English features, in the light of recent linguistic developments. Consideration is given to problems in bilingualism/biliteracy in the school curriculum.
3 Lect Hrs, 3 Credits
Mr Prou

BES 647
Portuguese Linguistics
Linguistic analysis of the phonology, morphology, and syntax of Portuguese, and a systematic comparison of its structures with those of English.
3 Lect Hrs, 3 Credits

BES 648
Capeverdean Culture
A study of the social, political, religious, and ethnic aspects of Capeverdean culture. Myths, legends, folk tales, poetry, and riddles are analyzed, along with the culture shock caused by the conflict of cultures.
3 Lect Hrs, 3 Credits
Mr Macedo

BES 649
Franco-American Culture
The study of Franco-American culture in New England and Louisiana as it relates to history, folklore, language, literature, art, and music. Special emphasis on social, political, religious, economic, and historical events which have contributed to the reality of the Franco-American of today.
3 Lect Hrs, 3 Credits

BES 650
Haitian Culture
An examination of several aspects of Haitian culture: historical, economic, social, political, religious, and ethnic. Documentation of cultural stigmas and attitudes toward various oral and written traditions in contact with North American culture.
3 Lect Hrs, 3 Credits
Mr Prou

BES 651
Portuguese Culture
An exploration of Portuguese culture, with consideration of social, economic, religious, and ethnic factors. Various cultural traditions such as myths, legends, folk tales, poetry and riddles are analyzed, along with the culture shock caused by the conflict of cultures.
3 Lect Hrs, 3 Credits

BES 652
Southeast Asian Cultures
This course introduces students to the peoples and cultures of Asia in the context of their shared history and parallel contemporary development. It focuses on themes that resonate throughout the area: the early influences of China and India, traditional sociopolitical and religious organization, European colonization, economic development, and modernization. Discussion and assignments are designed to address these issues as they are relevant to teachers and others who work with Southeast Asians.
3 Lect Hrs, 3 Credits
Ms Smith-Hefner

Bilingual/ESL Studies

BES 653
Asian Linguistics
This course acquaints students with the languages of Asia, including Chinese: their geographical distribution, historical relationships, and common structural characteristics. It seeks to provide students with the conceptual tools to understand and articulate the similarities and differences between Asian languages and English, and thus to better appreciate the difficulties faced by Asians learning English. Speaking ability in an Asian language, though helpful, is not required.
Prerequisite: One course in linguistics, or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Smith-Hefner

BES 654
Hispanic Culture
This course examines the essential components making up contemporary Hispanic civilization. It studies in detail the evolution of several defining cultural themes and institutions that have given cohesion to the vast and heterogeneous Hispanic world. Discussions focus on such issues as cultural identity; class and race; political authority; religion; patterns of economic development; and relations with the United States.
3 Lect Hrs, 3 Credits
Mr Barradas

BES 660
Teaching ESL: Theories and Principles
This course is designed to provide students with a theoretical background in the principles and methods of teaching English as a second language. Consideration is given to the nature of second language acquisition and the psychological and linguistic influences on ESL teaching. The course includes a survey of major methodological approaches, and considers the relationship between theory and practice.
3 Lect Hrs, 3 Credits
Ms Mitchell, Ms Zamel

BES 661
Teaching ESL: Methods and Approaches
This course familiarizes students with both the general schools that have formed the basis of teaching ESL and with the specific methodological models that represent extensions and adaptations of various perspectives. Attention is also given to the evaluation of English language teaching techniques.
3 Lect Hrs, 3 Credits
Ms Mitchell, Ms Zamel

BES 662
ESL Materials Development
Principles of adult education. Major methodological trends in curriculum and syllabus design. Overview of materials. Analysis of student texts.
Prerequisite: BES 660 or 661 or permission of instructor.
3 Lect Hrs, 3 Credits

BES 663
The Structure of the English Language
This course covers ways of describing the structure of English, from traditional methods used in many textbooks to alternative methods. Discussion of teaching methodologies and sociolinguistic considerations, and practice in applying these theories and techniques.
3 Lect Hrs, 3 Credits
Mr Meyer

BES 664
Phonetics and Phonemics
This course covers the sound system of English, the principles of phonetics and phonemics, and an introduction to phonology. Students practice using this knowledge to do error analysis and to teach aural/oral skills.
3 Lect Hrs, 3 Credits
Ms Smith-Hefner, Mr Meyer

BES 665
Writing Theories in ESL
This course considers research and theory in writing and addresses the particular constraints of writing in a second language. Participants examine and evaluate classroom instruction in light of research and theory. Emphasis is also given to formulating and exploring some implications of research and theory for second language and bilingual classrooms.
Prerequisite: One course in linguistics, or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Zamel

BES 666
Discourse Analysis for ESL
This course focuses on approaches to discourse analysis, which is defined as a set of procedures for interpreting utterances in context. It examines descriptive models drawn from linguistics, sociology, and anthropology, applying these models to both face-to-face oral interaction and selected aspects of written texts, which in general evidence more planning. Models of discourse analysis are applied to native/native and native/non-native interaction in interviews, classrooms, and everyday conversations.
Prerequisite: BES 620 or permission of instructor.
3 Lect Hrs, 3 Credits

BES 670
Testing in the Bilingual/ESL Classroom
Students become familiar with language proficiency and language maintenance testing, and with other measurement and evaluative procedures needed in the administration and instruction of limited English proficient students in ESL and bilingual programs.
3 Lect Hrs, 3 Credits

BES 671
The Teaching of Reading in the Bilingual/ESL Classroom
Analysis of current teaching theories about ESL and bilingual reading practices; and examination of specific reading methodologies, materials and teaching strategies.
3 Lect Hrs, 3 Credits
Ms Auerbach

BES 672
Theory and Practice of Adult ESL
This course examines new approaches to curriculum development for teaching ESL to adults, focusing on both theory and practice. Starting with an overview of theory in the areas of adult learning, literacy, and acquisition of a second language, the course goes on to link these theories with curriculum models. Students do research in adult ESL classrooms, using ethnographic techniques to analyze classroom interactions as a basis for their own development of curriculum.
3 Lect Hrs, 3 Credits
Ms Auerbach

BES 680
The Computer in the Bilingual/ESL Classroom
This course covers various applications of personal computers in the bilingual/ESL classroom. Students develop a conversational statistical package for analyzing problems of the limited English proficient student.
3 Lect Hrs, 2 Lab Hrs, 3 Credits
Mr Ferro

BES 681
Computer Assessment in the Bilingual/ESL Classroom
This course equips students with the computer skills necessary for constructing instruments to evaluate bilingual/ESL student competencies; for designing measures for placement; and for constructing exit tests in both the native language and in English.
3 Lect Hrs, 2 Lab Hrs, 3 Credits
Mr Ferro

Bilingual/ESL Studies

BES 682
Bilingual/ESL Computer-Assisted Instruction
This course trains students to develop programs for the computer-assisted instruction of bilingual/ESL students, both in the native language and in English as a second language. The course offers analysis of the learning difficulties of bilingual/ESL students and considers appropriate computer instruction activities for aiding these students.
Prerequisite: BES 680.
3 Lect Hrs, 2 Lab Hrs, 3 Credits
Mr Ferro

BES 683
Bilingual/ESL Computer Curriculum Development
Participants study the role of the computer in developing bilingual curriculum and in evaluating materials used in bilingual programs. Using a microcomputer, they develop and program appropriate teaching strategies, at the elementary or secondary level, for their bilingual or ESL curricula.
Prerequisite: BES 680.
3 Lect Hrs, 2 Lab Hrs, 3 Credits
Mr Ferro

BES 684
Bilingual/ESL Computer Research Methods
This course examines the role of microcomputers in quantitative educational research. Topics include conceptualization of research problems, development of hypotheses, definition and measurement of important variables, design of research strategies, analysis of data, interpretation and inference, and writing and implementing a research proposal in bilingual/ESL education.
Prerequisites: BES 680 and BES 681.
3 Lect Hrs, 2 Lab Hrs, 3 Credits
Mr Ferro

BES 691
Seminar
Experimental seminars on special topics.
3 Lect Hrs, 3 Credits

BES 696
Independent Study
Study of one of the following areas under the supervision of a faculty member: applied linguistics, psycholinguistics, sociolinguistics, second language and bilingual methodology, cross-cultural studies.
Hrs by arrangement, 3-6 Credits

BES 697
Special Topics in Bilingual/ESL Studies
An advanced course offering intensive study of selected topics in bilingual/ESL studies. Course content varies according to the topic, and will be announced prior to registration.
3-6 Lect Hrs, 3-6 Credits

BES 698
Practicum
An on-site field experience in the teaching of bilingual education or ESL on an elementary or secondary level, or in a social or educational agency serving limited English proficient students.
Hrs by arrangement, 3-6 Credits

Biology (PhD, MS)

Environmental Sciences/ Environmental Biology PhD Track Biology MS Program

Faculty

Steven Ackerman, PhD, *University of Pennsylvania* •Molecular Biology

Kamaljit Bawa, PhD, *Punjab University* •Forest Ecology and Genetics

Gregory Beck, PhD, *State University of New York at Stony Brook* •Immunology •Evolution

Ruth Bennett, PhD, *Tufts University* •Invertebrate Neurophysiology

Solange Brault, PhD, *Imperial College, University of London* •Population Dynamics •Conservation

Kenneth Campbell, PhD, *University of Michigan* •Cell Physiology •Endocrinology

Elizabeth Davis, PhD, *Brandeis University* •Developmental Biology •Tissue Culture

John Ebersole, PhD, *University of California, Los Angeles* •Marine Ecology •Icthyology

Ron Etter, PhD, *Harvard University* •Population Dynamics •Population Genetics

Robert Guimond, PhD, *University of Rhode Island* •Physiology

William Hagar, PhD, *Temple University* •Photosynthesis •Environmental Monitoring

Jeremy Hatch, PhD, *Duke University* •Ornithology •Animal Behavior •Ecology

Lawrence Kaplan, PhD, *University of Chicago* •Archaeological Botany

Richard Kesseli, PhD, *University of California at Davis* •Evolution •Plant Population Genetics

Christine Armett Kibel, PhD, *University of London, University College* •Invertebrate Neuroanatomy and Neurophysiology

Kenneth Kleene, PhD, *University of Washington* •Developmental Molecular Biology

Michael Rex, PhD, *Harvard University* •Marine Ecology

Edna Seaman, PhD, *University of Illinois, Urbana* •Molecular Genetics

Michael Shiaris, PhD, *University of Tennessee* •Microbial Ecology

Rachel Skvirsky, PhD, *Harvard University* •Molecular Genetics •Microbiology

Robert Stevenson, PhD, *University of Washington* •Comparative Animal Physiology

Eric Strauss, PhD, *Tufts University* •Behavioral Ecology

Manickam Sugumaran, PhD, *Indian Institute of Science* •Protein Chemistry •Enzymology •Insect Biochemistry

Richard White, PhD, *Washington University* •Vision Physiology

Garrison Wilkes, PhD, *Harvard University* •Plant Genetics and Evolution

The Program

The Graduate Program in Biology is designed to accommodate students of various backgrounds who wish rigorous training leading to the master of science degree in biology, or the PhD in environmental sciences/environmental biology, which the program administers (For complete information on doctoral study, see that section under "Degree Requirements" on page 32 of this publication).

Students in the master's program may choose to concentrate in one or more of these areas: biodiversity, cell biology, conservation biology, developmental biology, endocrinology, microbiology, molecular biology, neurobiology, physiology, plant sciences, and population and evolutionary biology. With the help of a faculty advisor, a cohesive course of study is designed from among the wide variety of research and study interests of the departmental faculty. The MS student may choose a program of study with a thesis, designed to provide competency for teaching, research, or further study. Another option is a program with a library research project, designed to meet the needs of a generalist. Under either option students may gain valuable experience through supervised participation in the teaching of undergraduate laboratory courses.

Facilities

The Biology Department's modern facilities support a broad spectrum of research interests normally found in the biological sciences. For graduate courses, there are special, well-equipped research laboratories with amino acid analyzers, controlled temperature growth chambers, electron microscopes, computer facilities, electrophysiological equipment, high-speed and refrigerated centrifuges, spectrophotometers, high-pressure liquid chromatography systems, polymerase chain reaction and DNA sequencing facilities, and scintillation counters. In addition, ample field equipment, boats, a greenhouse, salt water tanks, and other support facilities are available for enhancing studies in marine, aquatic and terrestrial environments.

Because the campus is located on Boston Harbor, one type of marine environment is readily accessible. Arrangements can be made for the use of the marine facilities and laboratories on Nantucket Island. Through the cooperation of the Waltham Field Station of the University, facilities are available for large plantings of botanical materials. The program also has informal arrangements with other institutions in the area, which provide access to additional specialized facilities.

Degree Requirements

The PhD in Environmental Sciences/ Environmental Biology

Soon after entering the program, each student is assigned an academic advisor, who serves, along with two additional faculty members in the student's area of interest, on an academic advisory committee (AAC). This committee assists the entering student in planning an appropriate course of study. During the first year of graduate study, before the formation of a dissertation committee, the AAC also monitors the student's progress, and reports to the Biology Graduate Committee, which oversees all aspects of graduate study in environmental biology.

The environmental biology curriculum includes course work, journal readings, and research. Each student selects an area of concentration; those currently available cover a wide range, from molecular biology to conservation biology. Students may choose to concentrate in any area that coincides with particular faculty interests, as shown on the list of program faculty at the beginning of this section. Formal course work, generally completed within the first three semesters, provides the foundation for the student's research efforts. A core of 13 credits includes Biol 650-651 (Scientific Communication), Biol 652 (Biological Diversity and Evolution), Biol 653 (Current Literature in Environmental Biology), EnvSci 611 (Applied Statistics), and EnvSci 616 (Environmental Policy and Administration); at least 20 credits of additional course work are also required. Students are expected to participate in Biol 672-673 (Directed Readings) which enables them to keep up with recent developments in the field, and provides a forum for students to make presentations of their own work. In addition to this course work, students take a minimum of 27 dissertation credits towards their PhD requirements, and teach at least two semesters of undergraduate laboratory or discussion sections.

Students must pass two examinations before they undertake research at the doctoral level. The first, a written comprehensive examination, tests the student's knowledge of environmental biology; the student must also demonstrate competence in using the computer. This examination may be taken at the end of the student's first year or after the completion of 18 credits of course work; it must be taken by the completion of 27 credits of course work.

Biology

A student who fails the written examination may, at the discretion of the academic advisory committee, be permitted a second and final written examination after six months. A student failing the examination a second time may either 1) withdraw from the program or 2) formally petition the Biology Graduate Committee to work toward a master's degree in biology, in biotechnology and biomedical science, or in environmental sciences. A student cannot continue in the PhD program after a second failure of the comprehensive examination.

The second of the qualifying examinations is an oral defense based on written materials submitted to the academic advisory committee (AAC). The student submits these materials at the time of the written exam, and the oral defense should take place five to six weeks later.

The materials to be submitted to the AAC consist of four topics or problems which could be expanded into research proposals, but which lie outside the specific area in which the student plans to do dissertation research. Students must originate these ideas, but may consult on their suitability with AAC members.*

On successful completion of the written comprehensive examination, the student's AAC will select two of the four ideas to be developed by the student into defensible research proposals, and submitted within one month to the AAC and the Biology Graduate Committee. Each proposal should be no longer than five pages, should reflect the breadth of the student's interests, and should comprise original, testable hypotheses which are fully justified through citations from the scientific literature. The student is encouraged to confer with members of the AAC on the soundness of the proposals. The student must defend the proposals at the oral examination. As with the comprehensive written examination, the student who fails the oral defense of these proposals may be permitted, at the committee's discretion, to retake this portion of the qualifying examination.

*Changes to this requirement were being considered when this publication went to press: They would call for submission of a dissertation proposal rather than four topics/problems; the most current information is available from the graduate program director.

On successful completion of both qualifying examinations the student becomes a candidate for the PhD. The Biology Graduate Committee oversees the student's choice of a dissertation advisor, who assists the student in selecting a dissertation committee. At this point the AAC turns over to the dissertation committee the responsibility for monitoring and guiding the student's progress toward the completion and defense of the dissertation.

If the presentation and successful defense of the dissertation do not take place within five years of admission to candidacy, the candidate must repeat the comprehensive examination. Please see the general statement on time limits and leaves of absence on page 32 of this publication.

The Master's Degree in Biology

Thirty credits are required for the master's degree in biology.

Each student is assigned to a three-member advising committee which will be responsible for insuring that the degree candidate fulfills all requirements of the Biology Program and the Office of Graduate Studies. Graduate students may select courses at the 600 level or above, subject to the permission of the instructor. Each student must choose either the thesis or non-thesis option. Students who choose to write a thesis will have a thesis advisor and committee (often the same as the advising committee) and must enroll in Biol 699 (Thesis Research). All other students are required to take Biol 698 (Projects in Biology). In addition, all students must take Biol 650 and 651 (Scientific Communication I and II) as partial fulfillment of master's degree requirements.

All candidates for the master's degree must take a general oral examination. Each student writing a thesis must submit a thesis outline to h/her thesis committee for approval before taking the master's oral examination, which is not limited to the thesis topic.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9, and the "Special Instructions for Applicants to Individual Programs" section at the back of this publication.

Applicants to the MS Program in Biology and the PhD track in Environmental Sciences/ Environmental Biology must submit Graduate Record Examination scores.

An applicant is expected to have a grade point average of 3.0 in all undergraduate science and mathematics courses. The stated interests of a prospective student must coincide to an acceptable degree with faculty specialties represented in the program. The Biology Graduate Committee is responsible for reviewing applications and for recommending candidates to the dean of Graduate Studies.

Eligibility for Courses

All 600-level courses with the exception of Biol 698 and 699 are open to advanced undergraduates who meet prerequisites and have the permission of the instructor. Please consult UMass Boston's undergraduate catalog for complete information about the undergraduate courses listed below as prerequisites for individual graduate-level courses.

Courses

Biol 601
Marine Ecosystems
The structure and function of coastal marine habitats including rocky intertidal areas, sandy beaches, tidal and mud flats, estuaries, salt marshes, soft bottom areas and plankton. The course reviews the physical regime, flora and fauna of these environments and case histories of community organization.
Prerequisites: Undergraduate course in ecology and permission of instructor.
3 Lect-Disc Hrs, 3 Credits

Biol 602
Plant Molecular Biology and Physiology
This course focuses on molecular mechanisms of gene regulation, gene expression patterns during development and differentiation, molecular responses to light, plant genetics, the evolution of genomes, plant biotechnology, and the molecular biology of the regulation of physiological processes in plants. Lecture topics integrate molecular biology, plant genetics, plant physiology, and plant evolution. The syllabus includes a core of basic lectures introducing students to the field of plant molecular biology. (Course offered in the spring only.)
Prerequisites: Biol 320 or 322; and 675 or 676.
3 Lect Hrs, 3 Credits

Biol 603
Theories of Community Structure
Theoretical aspects of community development and organization including demography, competition, predation, life history strategies, trophic structure, community stability, and equilibrium and non-equilibrium models of species diversity. The course emphasizes rigorous mathematical and graphical approaches. (Course offered in the spring only.)
Prerequisite: Biol 342, or equivalent, or permission of instructor.
3 Lect Hrs, 3 Credits

Biol 605
Field Sampling Methods and Data Analysis
Statistical principles of research design integrated with field techniques, to measure parameters of community structure. Field exercises involve application of the principles learned in lectures and the use of typical sampling equipment to solve environmental questions. Laboratory and field work.
Prerequisites: Biol 342 and 343, or equivalent, or permission of instructor.
3 Lect Hrs, 6 Lab Hrs, 5 Credits

Biology

Biol 608 (Physic 608)
Biophysical Instrumentation
A lecture and laboratory course on the application of microcomputers and microprocessor-based electronics to laboratory experiments in the biological and physical sciences. Emphasis is on techniques for interfacing the microcomputer with laboratory experiments for automated data acquisition, data reduction and analysis, information display and real-time control of experiments. (Course offered in the spring only.)
Prerequisite: Graduate standing or permission of instructor.
2 Lect Hrs, 4 Lab Hrs, 4 Credits

Biol 610
Ethnobotany
Review of studies on plant use by primitive societies in historic and prehistoric times. Ordinarily offered in conjunction with Biol 613.
Prerequisite: Permission of instructor.
2 Seminars or Tutorial Hrs, 2 Credits

Biol 612
Cell Biology
The analysis of gene transfer and expression at the cellular level, including the nature of metabolic systems and the factors governing their regulation.
Prerequisite: Permission of instructor.
Hrs by arrangement, 3-5 Credits

Biol 613
Topics in Archaeological Botany
Laboratory tutorial: Recovery, identification, and analysis of macroscopic plant remains, pollen, and spores from archaeological and geological deposits; interpretation of the data derived and their botanical, archaeological, and paleo-ecological applications. Since course content varies from semester to semester, this course may be taken more than once for credit.
Prerequisites: Permission of instructor; Biol 610 or equivalent. The number of credit hours will be determined by prior consultation with instructor.
3 Lab-Disc Hrs per Credit, 2-5 Credits
Mr Kaplan

Biol 614
Advanced Cell Chemistry
The methodology of cell analysis, with emphasis on macromolecules and intermediary metabolites.
Prerequisite: Permission of instructor.
Hrs by arrangement, 3-5 Credits

Biol 615
Immunology
Selected topics in immunology are studied in depth, using the current literature. Topics are chosen for relevance and current interest, or for their challenging, even controversial nature. (Course offered in the fall only.)
Prerequisite: Biol 378 or 380 or permission of instructor.
3 Lect Hrs, 3 Credits

Biol 619
Theory and Techniques of Electron Microscopy
This intensive course in scanning and transmission electron microscopy provides practical experience in tissue preparation, darkroom procedures, microtomy, and the use of microscopes. Lectures present theory, techniques and the basic physics of the microscope. Each student compiles a portfolio of micrographs.
Prerequisite: Biol L383 and L385 or comparable training; or permission of instructor.
Hrs by arrangement, 4 Credits

Biol 622
Concepts and Methods in Cytology
The structural basis of cellular and subcellular functions, with practical experience in methods of visualizing cellular structure.
Prerequisite: Permission of instructor.
Hrs by arrangement, 1-5 Credits

Biol 626
Molecular Genetics of Bacteria
In-depth examination of genetic and molecular processes in bacteria and their associated viruses. Coverage of classical bacterial genetics as well as modern molecular genetic analysis. Topics include genetic transfer processes, gene regulation, mutagenesis and repair, plasmids, transposons, gene fusion methodologies, and protein secretion. Emphasis is given to current experimental approaches and research design. (Course offered in the spring only.)
Prerequisite: Biology 252 or equivalent.
3 Lect Hrs, 3 Credits
Ms Skvirsky

Biol 627
Bacterial Physiology
A rigorous biochemical examination of the bacterial cell. Lectures focus on bacterial cytology, growth, and metabolism. Areas of current research are emphasized. Students are expected to read primary and secondary scientific literature and to discuss course material. (Course next offered spring 1996.)
Prerequisite: Biol 334 and L383, or equivalent.
3 Lect Hrs, 3 Credits
Mr Shiaris

Biol 628
Microbial Ecology
The functions, roles, and ecology of microorganisms in the environment, emphasizing biogeochemical cycling of elements. Topics for special concentration are chosen from the following: microbial diversity, evolution, interactions, aquatic or soil microbiology, and sewage microbiology. The course focuses on relating molecular and biochemical mechanisms to ecological principles. Readings are assigned from classical and current scientific literature for class discussion. An in-depth review paper on a special topic is required. (Course next offered spring 1997.)
Prerequisites: Biol 334 or 342, and 372, and permission of instructor.
3 Lect Hrs, 3 Credits
Mr Shiaris

Biol 632
Advanced Evolution
An inquiry into the modern synthetic theory of evolution with emphasis on population genetics, ecological genetics, evolution of dominance, genetic homeostasis, canalization and genetic theory of polymorphism.
Prerequisite: Permission of instructor.
Hrs by arrangement, 3 Credits

Biol 635
Advanced Genetics and Diversity
A quantitative approach to the concept of populations and the evolutionary forces affecting them. The course analyzes the interactions among forces and the resulting dynamics of population structure. Toward the end of the semester the course shifts its primary emphasis from lecture to discussion in order to cover current topics in population genetics. Topics include the theory and application of tools necessary for assaying genetic variation in natural populations, DNA fingerprinting in forensics, the evolution of sex, and the genetics of rare and endangered species. (Course next offered fall 1996.)
Prerequisites: Biology 252 and 352 or equivalent.
3 Lect Hrs, 3 Credits
Mr Kesseli

Biol 638
Advanced Ecology
Concepts of population and community ecology. Topics covered may include population dynamics, life history strategies, theory of r-and K-selection, competition, predation, community organization, and species diversity. Particular emphasis is placed on the relationship between theoretical and empirical ecology. A weekly tutorial provides the opportunity for greater discussion of material covered in lecture. Emphasis changes from year to year.
Prerequisite: Biol 342 or permission of instructor.
2 Lect Hrs, 1 Disc Hr, 3 Credits

Biology

Biol 640
Principles of Qualitative Modeling in Biology
A mathematical analysis of biological systems, with emphasis on qualitative rather than quantitative approaches. Signed digraphs (Loop Analysis), matrices, and computer programming will be used. In addition, notions of feedback, stability and other global properties of systems will be presented. During the work section, students will be grouped to solve problems. At the completion of the course students will be competent to distinguish the various methods, assess their strengths and limitations, and apply them to biological systems of interest.
3 Lect-Disc Hrs, 3 Credits

Biol 642
Biogeography
A study of geographical distribution patterns in plants and animals. Includes historical and descriptive aspects of the distributions of organisms, experimental and comparative tests of island biogeography theory, the population genetics and evolutionary strategies of colonizing species. Independent research by students is presented to the class in seminar form.
Prerequisites: Biol 342 and 352 or equivalents. Some knowledge of statistics and calculus highly recommended.
Hrs by arrangement, 3 Credits
Mr Rex

Biol 643
The Behavior and Ecology of Seabirds
Adaptations of seabirds to the marine environment with particular reference to breeding biology and feeding strategies; other topics of current interest in behavioral ecology. Lectures or lecture and field work.
Prerequisite: Permission of instructor.
Hrs by arrangement, 2-5 Credits

Biol 645
Ecological and Evolutionary Aspects of Plant-Animal Interactions
Coevolution of plants and animals is examined in an ecological context. Interactions to be examined include pollination, seed predation, herbivory, and grazing. Topics of discussion include the role of these interactions in the regulation of community structure. Although the main emphasis is on tropical communities, there is also some discussion of alpine, temperate, and desert communities.
Prerequisites: Biol 290; and 342 or 352 or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Bawa

Biol 646
Pollutants in Marine Food Chains
Examination in depth of the entry of selected pollutants into the oceans, their movements, distribution and effects within marine organisms. Where possible, case studies from New England will be used.
Prerequisite: Chem 253, Biol 210, Biol 342, and permission of instructor.
Hrs by arrangement, 2 Credits

Biol 650-651
Scientific Communication I and II
Required of all graduate students; usually taken in the second year. One credit is awarded for 650 and two for 651. They are offered concurrently, and students should take both courses in the same term. The courses cover the storage and retrieval of scientific information (including searching of computerized databases), the design of tables, figures, and other graphics, the writing of technical reports and papers, and the preparation of posters and publications. Writing, oral presentations and other assignments, and attendance at the weekly departmental seminar, are required. This course is part of the required core in the Environmental Sciences/Environmental Biology PhD track. (Course next offered spring 1996.)
Prerequisite: Admission to graduate study in biology at either the master's or the doctoral level.
3 Credits (for both courses)

Biology 652
Biological Diversity and Evolution
This course is an inquiry into the origin and evolution of patterns of biological diversity. We begin with an overview of the biogeochemical history of the Earth, theories of origin of life, diversification of metazoans during the Panerozoic, and the nature and causes of periodic mass extinction events. Biological diversity is considered at molecular, population, and community levels. This course is part of the required core in the Environmental Sciences/Environmental Biology PhD track. (Course offered in the fall only.)
Prerequisite: Permission of instructor.
3 Lect Hrs, 3 Credits

Biology 653
Current Literature in Environmental Biology
A series of one-credit seminar courses focusing on subfields of environmental biology, to help students develop the habit of keeping up with recent developments through reading scientific journals. The seminars also provide a forum for oral presentations where students can get comment and critique on their scientific progress. Students must take a minimum of five seminars, for a total of five credits. This course is part of the required core in the Environmental Sciences/Environmental Biology PhD track.
Prerequisite: Permission of instructor.
Hrs by arrangement, 1 Credit

Biol 658 (EnvSci 658)
Environmental Physiology
A discussion course exploring in detail the mechanisms by which organisms adapt to their environment, and highlighting the interplay among cellular function, physiological function, and the ecology of the organism. (Course offered in the spring only.)
Prerequisites: Biol 210 or 212, and L383; or permission of instructor.
3 Lect Hrs, 3 Credits

Biol 660
Seminar in Developmental Biology
Current problems in developmental biology. Topics include molecular and cellular differentiation, and pattern determination.
Prerequisites: Biol 312 and permission of instructor.
3 Sem-Disc Hrs, 3 Credits

Biol 662
Photobiology
The photochemical reactions that occur in biological systems. Major topic areas are properties of light energy, utilization of light energy by photosynthetic organisms, mechanism of visual transduction, photochemical triggering mechanisms for developmental processes. (Course next offered spring 1996.)
Prerequisite: Permission of instructor.
3 Lect Hrs, 3 Credits

Biol 666
Seminar in Neurobiology
Structure, function, and development of sensory receptors, neurons, and muscles.
Prerequisites: Biol 316 or 318 and permission of instructor.
3 Lect Hrs, 3 Credits

Biol 668
Cellular and Molecular Endocrinology
A laboratory and seminar course on selected aspects of endocrinology, emphasizing laboratory investigations of such topics of current interest in endocrinology as molecular control of the synthesis of hormones, complete elucidations of the mechanisms of hormone action, and methods of modulating fertility and development. (Course next offered spring 1997.)
Prerequisites: Chem 253, Biol 317 or Biol L383, and permission of instructor.
2 Lect-Seminar Hrs, 6 Lab Hrs, 4 Credits
Mr Campbell

Biology

Biol 670
Tissue Culture
A seminar and laboratory course on the principles and methods of culturing cells, tissues, and organs of animals and plants. Topics include growth factors, differentiation and morphogenesis in vitro, cell cloning, protoplast fusion, and the production of hybridomas for monoclonal antibodies. Students also apply tissue culture methods to individual research projects.
Prerequisites: Biol 312 or L383.
2 Sem Hrs, 6 Lab Hrs, 4 Credits
Ms Davis, Mr Kleene

Biol 672-673
Directed Readings in Biology
Selected readings in advanced areas of biology with guidance and regular discussion.
Prerequisite: Permission of instructor.
Hrs by arrangement, 1-3 Credits

Biol 675
Advanced Molecular Biology
A lecture and laboratory course covering the biosynthesis and regulation of RNA, DNA, and proteins in eukaryotic organisms. The course examines the importance of gene regulation in oncogenesis, levels of gene expression, and development; as well as regulation by structure and function (chromosome structure and translational regulation); basic research techniques; and current recombinant DNA methodology. Please note: Labs meet every other week, for a total of seven hours every two weeks. (Course offered in the fall only.)
Prerequisites: Biol L383, and permission of instructor
Prerequisite or Corequisite: Biol 670
3 Lect Hrs, 3 1/2 Lab Hrs, 4 Credits

Biol 676
Advanced Molecular Biology Lecture
A lecture only course covering the same material as Biol 675; no lab work is required. (Course offered in the fall only.)
Prerequisites: Biol L383, Biol 670 and permission of instructor.
3 Lect Hrs, 3 Credits

Biol 677
Advanced Eukaryotic Genetics
A broad spectrum of readings in plant, animal, and fungal genetics on such topics as segregation distortion, the control of sex determination, modes of asexual reproduction, inheritance of cytoplasmic genomes, self incompatibility systems, transposable elements, and genetic mapping.
Prerequisite: Biology 252 or equivalent.
3 Lect Hrs, 3 Credits
Mr Kesseli

Biol 678
Protein Chemistry and Enzymology
A lecture and laboratory course on various aspects of protein chemistry and enzymology. Emphasis is on purification, characterization, structure, function, mechanism of action, kinetics, and regulatory aspects of enzymes. Topics also include the practical and theoretical aspects of affinity chromatography and other separation techniques, immobilization of enzymes and other biomolecules, enzyme kinetics, and the analytical and industrial use of soluble and insoluble enzymes. (Course offered in the spring only.)
Prerequisites: Biol L383 and 372, and permission of instructor.
3 Lect Hrs, 6 Lab Hrs, 5 Credits

Biol 679
Protein Chemistry and Enzymology Lecture
A lecture only course covering the same material as Biol 678; no lab work is required. (Course offered in the spring only.)
Prerequisites: Biol L383 and 372, and permission of instructor.
3 Lect Hrs, 3 Credits

Biol 685
Biomedical Tracers
A seminar and laboratory course describing the types and uses of physical tracers in the biomedical sciences. Covers theory and application of various tracers (immunoglobins, radioisotopes, lectins, enzymes, chromogen labels, spin labels, heavy isotopes, and particles), instrumentation for their detection, and general methods. The laboratory includes demonstrations and short projects chosen by the students and the instructor.
Prerequisites: Chem 253, Biol L383 (or Biol 317 or 315), and permission of instructor.
2 Lect-Seminar Hrs, 6 Lab Hrs, 4 Credits
Mr Campbell

Biol 691
Advanced Ethology
Examination in depth of topics in the biological study of behavior-ethology with particular reference to communication and the evolution of social behavior. Lecture-discussions, occasional lab exercises and field trips.
Prerequisites: Graduate student or senior standing; Biol 348 and permission of instructor.
Hrs by arrangement, 3 Credits
Mr Hatch

Biol 692
Advanced Physiology
In-depth experimental studies of two or three selected areas of organismal and cellular physiology, focusing on sensory and nervous systems and membrane transport. Provisions will be made for independent projects during the course. One weekly seminar plus one weekly lab meeting.
Prerequisite: Biol 316 and 372, Chem 253, and Physics 107, or equivalents; and permission of instructor.
1 Sem Hr; 3-4 Lab Hrs, 3-4 Credits

Biol 697
Special Topics in Biology
A field of current interest in biology is examined in detail.
Prerequisite: Permission of instructor.
Hrs by arrangement, 2-5 Credits

Biol 698
Projects in Biology
A substantial written report based on library research or an original project such as curriculum design, design of teaching aids and exercises, or critique of a book or theory. No more than 6 credits of this course may be applied to the master's degree. The credits may be applied over more than one semester. Biol 698 and Biol 699 are mutually exclusive.
Hrs by arrangement, 1-6 Credits

Biol 699
Thesis Research
Substantial laboratory or field research resulting in a master's thesis. This course may not substitute for Biol 698 (these two courses are mutually exclusive). No more than 10 credits of this course may be applied to the master's degree. The credit may be applied over more than one semester.
Hrs by arrangement, 1-10 Credits

Biol 720
Cell Ultrastructure
Concepts of cell ultrastructure and methods of electron microscopy.
Prerequisite: Graduate standing and permission of instructor.
Hrs by arrangement, 3-5 Credits
Ms Kibel, Mr White

Biology 899
Dissertation Research
Research conducted under Biology Department faculty supervision which leads to the presentation of a doctoral dissertation in environmental sciences for students in the environmental biology track of that program.
Prerequisite: Permission of the instructor.
Hrs by arrangement, variable credits, minimum of 27.

Biotechnology and Biomedical Science (MS)

Faculty

Steven Ackerman (Biology Department), PhD, *University of Pennsylvania* •Molecular Biology

Marvin M Antonoff (Physics Department), PhD, *Cornell University* •Interfacing of Computers with Living Systems

Kamaljit Bawa (Biology Department), PhD, *Punjab University* •Plant Ecology and Genetics

Gregory Beck (Biology Department), PhD, *State University of New York at Stony Brook* •Immunology •Cytokine Evolution

Ruth Bennett (Biology Department), PhD, Tufts University •Neurophysiology

Kenneth Campbell (Biology Department), PhD, *University of Michigan* •Cell Physiology, Endocrinology

Leonard Catz (Physics Department), PhD, Hebrew *University of Jerusalem* •Experimental Atomic and Nuclear Spectroscopy

Elizabeth Davis (Biology Department), PhD, *Brandeis University* •Developmental Biology •Tissue Culture

Ron Etter (Biology Department), PhD, *Harvard University* •Ecology and Evolution

William Hagar (Biology Department), PhD, *Temple University* •Photosynthesis

Richard Kesseli (Biology Department), PhD, *University of California at Davis* •Evolution •Molecular Genetics

Christine Armett Kibel (Biology Department), PhD, University of London, University College •Neurophysiology

Kenneth Kleene (Biology Department), PhD, *University of Washington* •Developmental Molecular Biology

Daniel A Laufer (Chemistry Department), PhD, *Brandeis University* •Synthesis and Properties of Biomolecules •Polymeric Reagents

Thomas N Margulis (Chemistry Department), PhD, *University of California, Berkeley* •X-Ray Crystallography of Drugs and Natural Products

Henry A Mariani (Chemistry Department), PhD, *Boston College* •Polyaromatics •Synthesis and Use of Fluorinated Compounds in Carcinogenesis

Martin Posner (Physics Department), PhD, *Princeton University* •Biophysics •Cell Physiologic and Molecular Studies

Fuad Safwat (Biology Department), PhD, *Washington University* •Plant Morphogenesis

Edna Seaman (Biology Department), PhD, *University of Illinois, Urbana* •Molecular Genetics

Michael Shiaris (Biology Department), PhD, *University of Tennessee* •Microbiology •Ecology

Rachel Skvirsky (Biology Department), PhD, *Harvard University* •Molecular Genetics •Microbiology

Robert Stevenson (Biology Department), PhD, *University of Washington* •Comparative Animal Physiology

Manickam Sugumaran (Biology Department), PhD, *Indian Institute of Science* •Protein Chemistry •Enzymology •Insect Biochemistry

Richard White (Biology Department), PhD, Washington University •Vision Physiology

Garrison Wilkes (Biology Department), PhD, *Harvard University* •Plant Genetics and Evolution

Hans van Willigen (Chemistry Department), PhD, *University of Amsterdam* •Application of Spin Resonance in the Study of Structure and Dynamics

The Program

This MS program trains students in the theory and laboratory techniques used in biotechnology and biomedical science—two high technology areas of expanding national and local importance. The program provides a firm foundation in the principles underlying modern biotechnology techniques, and integrates this theoretical understanding with intensive training in a variety of laboratory skills and in computer applications to biotechnology.

The curriculum of the program consists of required courses in biology and biophysics, a required two-semester research experimentation course (Biol 696) , and elective courses in biology, chemistry, environmental sciences, and physics. Work in these courses is particularly appropriate for students with interests in the emerging fields of biotechnology, molecular genetics, tissue culture, and advanced computerized laboratory technology.

The program has cooperative arrangements with various private and public sector laboratories, in which some students will do supervised research as interns. Interchange between these laboratories and the University will insure that all students receive training that is congruent with the needs of the private and public sectors.

Facilities

The modern facilities of the University's Biology Department support current research techniques in biotechnology and biomedical science. Graduate students can work in special, well-equipped research laboratories with amino acid analyzers, computer facilities, controlled environment chambers, electron microscopes, electrophysiological equipment, high-speed and refrigerated centrifuges, spectrophotometers, high-pressure liquid chromatography systems, polymerase chain reaction and DNA sequencing facilities, and radiation counters. Excellent tissue culture facilities are available for graduate student research.

Degree Requirements

Thirty credits are required for the master of science degree in biotechnology and biomedical science.

Each degree candidate is assigned to a three-member advising committee, which will be responsible for insuring that the student fulfills all requirements of the program and the Office of Graduate Studies.

All students must complete the following courses:

Biol 650-651 (Scientific Communication I and II)
Biol 696 (Research Experimentation)
Note: Two semesters of Biol 696 must be taken.

All students must complete at least four of the following courses:

Biol/Physic 608 (Biophysical Instrumentation)
Biol 615 (Immunology)
Biol 626 (Molecular Genetics of Bacteria)
Biol 627 (Bacterial Physiology)
Biol 664 (DNA and Protein Sequence Analysis)*
Biol 670 (Tissue Culture)
Biol 675 (Advanced Molecular Biology)
Biol 678 (Protein Chemistry and Enzymology)
*Course pending University approval.

Students must also complete thirty credits by taking elective courses chosen from the following list. At least two must be biology courses.

Biotechnology and Biomedical Science (MS)

Biol 602 (Plant Molecular Biology and Physiology)
Biol 612 (Advanced Cell Biology)
Biol 614 (Advanced Cell Chemistry)
Biol 619 (Theory and Technique of Electron Microscopy)*
Biol 622 (Concepts and Methods in Cytology)
Biol 653 (Current Literature)
Biol 662 (Photobiology)
Biol 668 (Cellular and Molecular Endocrinology)
Biol 672-673 (Directed Readings)
Biol 685 (Biomedical Tracers)
Biol 692 (Advanced Physiology)
Biol 699 (Thesis Research)**
Chem 653 (Introduction to Polymer Chemistry)
Chem 658 (Medicinal Chemistry)
EnvSci 611 (Applied Statistics)
Physic 603 (Nuclear Radiation Physics and Biophysics Laboratory)
Physic 604 (Cryogenics and Vacuum Technology)
Physic 609 (Physics of Medical Imaging)
Physic 610 (Topics in Medical Imaging)

*Open as an elective only to those students whose thesis projects require the use of electron microscopy.

**Open as an elective only to those students choosing the thesis option. May be taken for a maximum of 4 credits.

Students wishing to substitute any other courses for those on this list of electives must have prior approval from their advising committee, the Biotechnology and Biomedical Science Program advisor, and the graduate program director.

Each student must prepare a written report on his or her research work and must also take an oral examination, which will not necessarily be limited to the topic of the report. The student must submit an outline of the report to his or her advising committee before taking the oral examination.

Students may choose either an internship option or a thesis option, which will enable them to pursue a thesis research project in the laboratory of a faculty member. Thesis students have the option of taking 4 additional research credits, as Biol 699. This, in combination with two semesters of Biol 696, will allow for a maximum of 10 credits toward research.

Note: These degree requirements are subject to change as developments in the field affect the program's curriculum. Please contact the Biology Department for the most current information.

Admission Requirements

Please see the general statement of admission requirements for all graduate studies programs on page 9 of this publication.

Each applicant to the Program in Biotechnology and Biomedical Science must submit Graduate Record Examination scores, including a score for one advanced test. An applicant is expected to have a grade point average of 3.0 in all undergraduate science and mathematics courses.

It is expected that entering students will have completed, or will complete, the following courses or their equivalents (please consult UMass Boston's undergraduate catalog for complete information about these courses):

Biol 252 (Genetics)
Chem 253 and 254 (Organic Chemistry I and II)
Biol 334 (Microbiology)
Biol L371 (Biochemistry) *or*
Biol L383 (Biochemistry I)
Biol 372 (Molecular Biology)
Biol 373 (Methods in Cell Biology and Biochemistry I) *or*
Biol L385 (Biochemistry II)
Biol 374 (Methods in Cell Biology and Biochemistry II)
CS [Computer Science] 110 (Introduction to Computing)
Physics 107 and 108 (College Physics I and II)
Physics 181 and 182 (Physics Laboratory I and II)

The stated interests of a prospective student must coincide to an acceptable degree with faculty specialties represented in the program. The Biology Graduate Committee, in conjunction with the director of the program, is responsible for reviewing applications and for recommending candidates to the dean of Graduate Studies.

Course Descriptions

Descriptions of courses required of all students appear below. Descriptions of elective courses may be found in the Biology, Chemistry, Environmental Sciences, and Applied Physics sections of this publication.

Courses

Biol 608 (Physic 608)
Biophysical Instrumentation
A lecture and laboratory course on the application of microcomputers and microprocessor-based electronics to laboratory experiments in the biological and physical sciences. Emphasis is on techniques for interfacing the microcomputer with laboratory experiments for automated data acquisition, data reduction and analysis, information display and real-time control of experiments.
Prerequisites: Graduate standing or permission of instructor.
2 Lect Hrs, 4 Lab Hrs, 4 Credits

Biol 615
Immunology
Selected topics in immunology are studied in depth, using the current literature. Topics are chosen for relevance and current interest, or for their challenging, even controversial nature. (Course offered in the fall only.)
Prerequisite: Biol 378 or 380 or permission of instructor.
3 Lect Hrs, 3 Credits

Biol 626
Molecular Genetics of Bacteria
In-depth examination of genetic and molecular processes in bacteria and their associated viruses. Coverage of classical bacterial genetics as well as modern molecular genetic analysis. Topics include genetic transfer processes, gene regulation, mutagenesis and repair, plasmids, transposons, gene fusion methodologies, and protein secretion. Emphasis is given to current experimental approaches and research design. (Course offered in the spring only.)
Prerequisite: Biology 252 or equivalent.
3 Lect Hrs, 3 Credits
Ms Skvirsky

Biol 627
Bacterial Physiology
A rigorous biochemical examination of the bacterial cell. Lectures focus on bacterial cytology, growth, and metabolism. Areas of current research are emphasized. Students are expected to read primary and secondary scientific literature and to discuss course material. (Course next offered spring 1996.)
Prerequisite: Biol 334 and L383, or equivalent.
3 Lect Hrs, 3 Credits
Mr Shiaris

Biol 650-651
Scientific Communication I and II
Required of all graduate students; usually taken in the second year. One credit is awarded for 650 and two for 651. Students should take both courses either in the same term (they are frequently offered concurrently) or in the same academic year. The two courses cover the storage and retrieval of scientific information (including searching of computerized databases), the design of tables, figures, and other graphics, the writing of technical reports and papers, and the preparation of posters and publications. Writing, oral presentations and other assignments, and attendance at the weekly departmental seminar, are required.
3 Credits (for both courses)

Biotechnology and Biomedical Science (MS)

Biol 670
Tissue Culture
A seminar and laboratory course on the principles and methods of culturing cells, tissues, and organs of animals and plants. Topics include growth factors, differentiation and morphogenesis in vitro, cell cloning, protoplast fusion, and the production of hybridomas for monoclonal antibodies. Students also apply tissue culture methods to individual research projects.
Prerequisites: Biol 314 or L383.
2 Sem Hrs, 6 Lab Hrs, 4 Credits
Ms Davis, Mr Kleene

Biol 675
Advanced Molecular Biology
A lecture and laboratory course covering the biosynthesis and regulation of RNA, DNA, and proteins in eukaryotic organisms. The course examines the importance of gene regulation in oncogenesis, levels of gene expression, and development; as well as regulation by structure and function (chromosome structure and translational regulation); basic research techniques; and current recombinant DNA methodology. Please note: Labs meet every other week, for a total of seven hours every two weeks.
Prerequisites: Biol L385, 612, and 670, and permission of instructor.
3 Lect Hrs, 3 1/2 Lab Hrs, 4 Credits

Biol 678
Protein Chemistry and Enzymology
A lecture and laboratory course on various aspects of protein chemistry and enzymology. Emphasis is on purification, characterization, structure, function, mechanism of action, kinetics, and regulatory aspects of enzymes. Topics also include the practical and theoretical aspects of affinity chromatography and other separation techniques, immobilization of enzymes and other biomolecules, enzyme kinetics, and the analytical and industrial use of soluble and insoluble enzymes. (Course offered in the spring only.)
Prerequisites: Biol L383 and 372, and permission of instructor.
3 Lect Hrs, 6 Lab Hrs, 5 Credits

Biol 696
Research Experimentation in Biology
This course provides students with sustained experience in a research laboratory. Each student pursues a specific research project, which may originate in a public or private sector laboratory or at the University. Each student's project should involve the student in ideas and laboratory skills and should permit the student to produce work of publishable quality.
Prerequisites: Admission to the Biotechnology and Biomedical Science Program; permission of instructor.
Hrs by arrangement, 3 Credits

Business Administration (MBA)
Nursing and Management Program (MS/MBA)

Faculty

Noushin Ashrafi, MBA, *McNeese State University*, PhD, *University of Texas at Arlington* •Management Science and Information Systems

Arindam Bandopadhyaya, PhD, *Indiana University* •Finance •Economics

Robert E Bertone, MA, *Boston College* •Communication

Gunther S Boroschek, PhD, ITP, *Harvard University* •International Management

Abhijit Chaudhury, PhD, *Purdue University* •Management Information System

Lal C Chugh, PhD, *Harvard University* •Finance

John E Coleman, MBA, *Babson College*, JD, Suffolk University Law School •CPA •Taxation and Law

Jay F. Coughenour, MBA, *Northeastern University*, PhD, *Arizona State University* •Finance

Betty J Diener, MBA, DBA, *Harvard Graduate School of Business* •Marketing

Marlene G Fine, MBA, PhD, *University of Massachusetts Amherst* •Communication

Lawrence G Franko, DBA, *Harvard University* •Finance •International Management

Arthur A Goldsmith, MBA, *Boston University,* PhD, Cornell University •Public Policy

Ellen Greenberg, MBA, PhD, *Columbia University* •Organizational Behavior

J Oscar Gutierrez, PhD, *London School of Economics and Political Science* •Management Information Systems

Eric W Hayden, PhD, *Johns Hopkins University* •International Finance

Thomas J Hogan, MBA, *University of Washington*, PhD, *University of Massachusetts Amherst* •Accounting

Peter T Ittig, PhD, *Cornell University* •Management Science

Jane H Ives, PhD, *University of London* •International Entrepreneurship

Priscilla K Jaggia, PhD, *Indiana University* •Finance

Richard L Keith, MBA, *Northeastern University*, DBA, *Florida State University* •Accounting

Jean-Pierre Kuilboer, MBA, *University of Southwestern Louisiana*, PhD, *University of Texas at Arlington* •Management Information Systems

Chia-Hsiu Sophie Lee, MBA, *University of Texas at Austin* •Management Information Systems

David L Levy, MBA, *Tel Aviv University*, DBA, *Harvard University* •Management

Raymond Liu, MBA, *Dalian University*, PhD, University of Oregon •Marketing Research

Allan J MacQuarrie, MBA, *Duquesne University*, PhD, Pennsylvania State University •CPA •Accounting

Peter J McClure, MBA, DBA, *Indiana University (on leave, fall, 1996)* •Marketing

Vicki Milledge, MA, *California State University at Sacramento* •Organizational Behavior

Cathryn A Nelson, PhD, *University of Arizona,* •Communication

Michael A Novak, PhD, *University of Cincinnati* •Organizational Behavior

John C Papageorgiou, PhD, *University of Manchester* •Management Science

Philip L Quaglieri, PhD, *Stevens Institute of Technology* •Human Resources Management

Octavio Richetta, MBA, *Columbia University*, PhD, *Massachusetts Institute of Technology* •Management Science

Mark A Schlesinger, PhD, *University of Michigan* •Communication Information Systems

Vivien A Schmidt, PhD, *University of Chicago* •Political Science

Daniel G Shimshak, MBA, *Baruch College*, PhD, *City University of New York* •Management Science

Satish Thosar, MBA, *Xavier Institute*, PhD, *Indiana University* •Finance

Joan C Tonn, PhD, *University of Michigan* •Organizational Behavior

Bhatt Vadlamani, PhD, *New York University* •Strategic Management

Kiran Verma, PhD, *Michigan State University* •Accounting

James F Volkert, PhD, *University of Illinois* •Accounting

Janet Wagner, PhD, *Massachusetts Institute of Technology* •Management Science

Patricia L Wilkie-Gootman, PhD, *Wayne State University* •Organizational Behavior

Sally Wright, MBA, *Northeastern University,* PhD, *Boston University* •Accounting

Leon Zurawicki, PhD, *Warsaw University* •International Marketing

The Program

The program leading to the MBA degree is designed to develop general competence in overall management and to meet the curricular requirements of the American Assembly of Collegiate Schools of Business (AACSB). The objectives of the program are to provide students with the following:

- An understanding of the structure and philosophical foundations of the business organization and an appreciation of the relationship between business and the society in which it operates.
- Opportunities to apply research and decision-making tools and techniques in the solution of managerial problems in private and nonprofit settings.
- Opportunities to integrate knowledge through analysis of complex managerial problems.

The program is suitable for persons with undergraduate degrees in a variety of fields including the liberal arts or engineering as well as business. Students with an undergraduate degree in business may be eligible for advanced standing. To enable persons who are employed during normal working hours to pursue the degree program, MBA courses are offered only in the evening, Monday through Thursday, on a one meeting per week schedule. The program, therefore, is designed primarily though not exclusively for part-time students. Depending on eligibility for advanced standing, a part-time student taking two courses each semester (including summers) may complete the program within three years.

Degree Requirements

Students must satisfactorily complete 18 courses, or 54 semester credits, to receive the MBA degree. These credits may be earned by successfully completing graduate courses at UMass Boston, by the transfer of up to six graduate credits from another university, or by waiver.

Core Requirements

The MBA core consists of ten courses required for all students: Managerial Economics, Accounting for Managers, Financial Management, Statistical Analysis for Managers, Operations Management, Computer and Information Systems, Organizational Theory and Behavior, Business and Its Environment, Marketing Management, and Strategic Management. A maximum of 21 credits of the MBA core may be waived for students who have satisfactorily completed appropriate courses at the undergraduate level. (See "Advanced Standing" below.)

Business Administration

Elective Requirements

In addition to the core courses, students must satisfactorily complete at least 24 semester credits in advanced courses. Students may choose to use some of their elective credits to specialize in a particular area of management (e.g., accounting, finance, information systems, international management, or environmental management). Students must take at least one elective course devoted primarily to international management issues.

Sequencing of Courses

Seven of the ten core courses must be successfully completed (or waived in the assessment of advanced standing) before students elect advanced courses. Students must successfully complete the core course in a given subject area before electing an advanced course in that area. The Strategic Management course (MGT 689), part of the required core, is the "capstone" course for the program and is taken in the student's final semester of study.

Advanced Standing

The MBA core is designed to provide instruction in what business schools define as the common body of knowledge in management. Some applicants, as part of their undergraduate degree programs, have received instruction in some areas of the common body of knowledge. Such applicants may be eligible for advanced standing in the MBA program. Advanced standing is the waiver of some portion of the MBA core requirements. If a student has (1) taken sufficient undergraduate course work in the last five years from an accredited institution in subject matter included in the core, and (2) received a minimum of B in those courses, the student, on admission to the program, may submit a request for waiver of credits to the MBA program director. Judgments concerning eligibility for advanced standing are based on analysis of transcripts, course syllabi, examination, or other relevant material. No more than 21 credits shall be waived. A minimum of 11 courses must be taken at UMass Boston.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9, and the "Special Instructions for Applicants to Individual Programs" section at the back of this publication.

The Master of Business Administration (MBA) Admission Committee will recommend admission for applicants who show evidence of high promise of success in the MBA program of study. Such evidence must include:

1. A minimum cumulative grade point average of 2.75 in undergraduate course work, and 3.0 in the last 60 semester hours of undergraduate course work.
2. A score on the Graduate Management Admission Test (GMAT).
3. A current résumé.

The MBA Admission Committee will consider, in addition to the above requirements, relevant work experience, career goals and letters of recommendation.

The MS/MBA Program

This combined degree program has been established by UMass Boston's College of Nursing and College of Management. Graduates of the program earn the joint master of science degree in nursing and the master of business administration degree. The program's curriculum of integrated study in nursing and management prepares its graduates to manage patient care and health programs at executive levels in a variety of management positions. For complete information on this program, see its entry in the Nursing section on page 125 of this publication.

Course Information

In order to enroll in MBA courses, students must be matriculated in the program or meet specific requirements for non-degree-seeking (non-matriculated) students. For complete information on enrollment in courses as a non-degree-seeking student, call the program office (617 287-7720).

All MBA courses award three credits and meet once per week for three class hours. In the listings below, a prefix identifies each course by department, according to the following code: AF (Accounting and Finance), MGT (Management), MSIS (Management Science and Information Systems), MAC (Marketing and Communication). Please note: Not all courses are offered each semester. Consult the program office for the most current information.

Preparatory Course

The following preparatory course is required for all students in the program. Those who have not completed it or its equivalent before they are admitted to the program must take it during their first semester. Credits from the course will appear on the student's transcript, but cannot be counted toward MBA degree requirements.

MSIS 600
Mathematical Analysis for Managers
Provides the mathematical skills and applications necessary to pursue graduate study in the College of Management. Topics covered include a review of basic algebra; graphing; linear, polynomial, exponential and logarithmic functions; functions of several variables; systems of linear equations; probability; differentiation and integration.
3 Lect Hrs, 3 Credits

Core Courses

AF 601
Managerial Economics
Examines managerial applications of economic theory. Topics include macroeconomics, applied consumer choice, firm behavior, pricing, and the study of market structure.
Prerequisite: MSIS 600.
3 Lect Hrs, 3 Credits

AF 610
Accounting for Managers
Instructs students in the fundamentals of financial and managerial accounting. The financial accounting component presents techniques used to measure business transactions, preparation of financial statements, recording and valuation of assets, owners' equity, revenue, cost and expenses. The managerial accounting component deals with techniques for management decision-making, planning, and control.
3 Lect Hrs, 3 Credits

AF 620
Financial Management
Examines the principles of financial administration for firms, including capital budgeting and financial analysis under changing economic conditions.
Prerequisites: AF 601 and AF 610.
3 Lect Hrs, 3 Credits

Business Administration

MSIS 630
Statistical Analysis for Managers
Acquaints students with statistical techniques used in management decision-making and develops their ability to characterize management problems that can be solved by such techniques. Topics include descriptive statistics, probability distributions, sampling, estimation, hypothesis testing, simple and multiple regression and correlation, chi square testing, analysis of variance, and decision theory. Students make use of computers and appropriate software to apply what they are learning.
Prerequisite: MSIS 600.
3 Lect Hrs, 3 Credits

MSIS 635
Operations Management
Familiarizes students with the analysis, planning, and control of operations and operating resources in both production and service organizations. Topics covered include product design and process selection, capacity planning, location and layout decisions, and inventory control. Analytical techniques used in system design and operations planning and control problems are also discussed. Students make use of computers and appropriate software to apply what they are learning.
Prerequisite: MSIS 630.
3 Lect Hrs, 3 Credits

MSIS 640
Computer and Information Systems
Offers a comprehensive examination of computers, telecommunication, and information systems in organizations. This course presents a review of modern information and communication technologies and their role in the areas of organizational productivity, decision support, competition and strategy, marketing support and re-design of business processes. Major topics include computer technology, strategic information systems, inter-organizational information systems, systems development, planning of information technology, and the uses of information systems in management control and decision-making. Some modules may involve hands-on use of personal computers.
3 Lect Hrs, 3 Credits

MGT 650
Organizational Theory and Behavior
Examines the organization at the macro level (organizational theory) and the micro level (organizational behavior), drawing on classical and contemporary theory and research. Relevant topics at the macro level include organizational structure and complexity as well as issues of effectiveness. Relevant topics at the micro level include motivation, power, leadership, communication, conflict, and decision-making.
3 Lect Hrs, 3 Credits

MGT 660
Business and Its Environment
Looks at the relationship of business to the external environment. The course considers business in relation to legal, social, political, and economic systems, focusing in particular on the impact of governmental regulation on business. The course also addresses the functioning of the US business enterprise in the context of the international business environment. Finally, through an examination of the role of ethics in management decision-making, the course explores how business organizations can operate effectively and responsibly in the context of the external environment.
3 Lect Hrs, 3 Credits

MAC 670
Marketing Management
Focuses on the strategic decisions necessary to match organizational resources with market opportunities. Students learn to analyze market opportunities, to develop marketing plans and marketing mix strategies, and to manage implementation and control of the marketing plan.
Prerequisite: AF 610.
3 Lect Hrs, 3 Credits

MGT 689
Strategic Management
Considers the diverse situations typically confronted by upper level management and strategies for managing these situations, using knowledge acquired through study of the MBA Core. These strategies are based on an analysis of the internal conditions of the firm and the constraints and opportunities afforded by the external environment. Students learn to develop strategy implementation plans that provide detailed descriptions of appropriate executive action.
Prerequisite: This course is to be taken in the student's final semester of study.
3 Lect Hrs, 3 Credits

Advanced Courses

Accounting and Finance

AF 611
Intermediate Accounting
In this course, the principles and practices of financial reporting are explored and examined. Topics covered include, for example, the development of generally accepted accounting principles, reporting financial position and operating results, and current problematic reporting issues. The material is approached from the point of view of a manager.
Prerequisite: AF 610.
3 Lect Hrs, 3 Credits

AF 612
Cost Accounting
Examines the use of cost accounting as a means of providing quantitative information for managerial decision-making and control. Emphasizes analysis of cost behavior, cost-volume-profit relationships, budgeting, and performance measurement.
Prerequisite: AF 610.
3 Lect Hrs, 3 Credits

AF 613
Federal Tax Planning
Introduces the concepts of gross income recognition, deductions, tax credits, and the income tax effects of property transactions, with emphasis on managerial decision-making and planning. These concepts are incorporated into discussion of alternative forms of business organization and the tax implications of each.
Prerequisite: AF 610.
3 Lect Hrs, 3 Credits

AF 614
Financial and Managerial Auditing
Covers all branches of auditing, focusing on the theory of internal control; approaches auditing as a highly specialized area that involves the gathering and analysis of reliable evidence in order to formulate a judgment. This course begins the process of preparing the student to become a certified public accountant or a certified internal auditor.
Prerequisite: AF 610.
3 Lect Hrs, 3 Credits

Business Administration

AF 617
Management Accounting and Control
This course is designed to introduce the important role management accounting can play in helping managers make informed decisions. In particular, the course will emphasize modern theories of product cost, performance measurement, and management control systems. The course will primarily use cases based on real world problems to teach concepts such as Activity Based Cost Systems, Target Costing, Balanced Scorecard, Productivity Improvement, Total Quality Management, and Effective Incentive systems.
Prerequisites: AF 620
3 Lect Hrs, 3 Credits

AF 621
Advanced Corporate Finance
Provides students with a broader and deeper understanding and appreciation of corporate finance. It builds on the principles and concepts developed in the core Financial Management, offering a deeper, broader or different perspective on some similar issues (e.g. an options approach to capital budgeting) and introduces such new topics as convertible securities, leasing, mergers and acquisitions, and international financial management.
Prerequisite: AF 620.
3 Lect Hrs, 3 Credits

AF 622
Global Portfolio Investment Management
Explores portfolio investment management, i.e., the management of wealth in the form of readily marketable securities, in a global context. The focus is on extensions of investment theory and practice to a multi-country field of portfolio choice. Of special concern are variables and constraints that modify concepts and practices useful in the domestic US market. These include the problems of investing in a world of many currencies, differential economic growth, divergent institutional and legal environments, differing national accounting systems and national valuation norms and practices. (An international management elective.)
Prerequisite: AF 620.
3 Lect Hrs, 3 Credits

AF 626
International Financial Management
Describes the body of knowledge, attitudes, and skills required of financial decision-makers operating in a global setting. The phenomenal rise in importance of multinational business finance and concomitant issues is explored in light of recent theoretical and empirical research. Specific topics include foreign exchange risk management, financing decisions in the long and short run, currency translation, accounting, and taxation.
(An international management elective.)
Prerequisites: AF 610 and AF 620.
3 Lect Hrs, 3 Credits

AF 627
Health System Financial Management
Addresses the financial management theory, techniques, and issues applicable to public and private health organizations. Specific topics include budgeting, capital formation, cost finding, reimbursement alternatives, financial analysis, and performance evaluation. Evaluates contemporary policy issues affecting the health care administrator.
Prerequisites: AF 610 and AF 620.
3 Lect Hrs, 3 Credits

AF 628
Portfolio Analysis and Investment Management
Examines modern portfolio theory in detail. The Capital Asset Pricing Model, the Arbitrage Pricing Model, and the Options Pricing Model are developed in a theoretical framework. Students are given the opportunity to apply these concepts in a portfolio management context. The course explores recent trends in asset markets and the investment implications of deregulation in the financial intermediary sector.
Prerequisite: AF 620.
3 Lect Hrs, 3 Credits

AF 629
Managing Financial Institutions
Focuses on the financial management of financial institutions. It covers the management of liquidity, loan portfolio, and capital as well as overall asset-liability management in depository type institutions. The course also discusses the strategic implications for such institutions of changing financial and regulatory environment. The course is oriented toward managerial decision-making in the volatile environment facing these institutions. The course is conducted through the analysis of cases and discussion of the kinds of issues that affect decisions.
Prerequisite: AF 620.
3 Lect Hrs, 3 Credits

AF 678
Environmental Issues in Accounting and Finance
Examines the collection, treatment, and disclosure of costs and liabilities associated with environmental issues and their bearing on product costing, capital budgeting, auditing and investment decisions. The role of regulatory compliance and its impact on environmental exposure is also explored.
(An international management elective.)
Prerequisites: AF 610, MGT 671
3 Lect Hrs, 3 Credits

Management

MGT 651
Personnel Management and Human Resources Planning
Designed to familiarize students with concepts of human resources management and the principles of planning and forecasting for human resources needs. Issues to be addressed will include career planning and internal labor market analysis, equal employment opportunity and affirmative action practices. Students will examine job design and pay systems, methods of personnel selection and training, issues of productivity and hours of work, the effect of government regulations on working conditions, and personnel administration.
Prerequisite: MGT 650.
3 Lect Hrs, 3 Credits

MGT 652
Labor-Management Relations and the Collective Bargaining Process
Familiarizes the student with the practice of labor-management relations in the United States. The nature of labor-management conflict, the development of the US labor movement, and a comparison to other Western labor movements will provide the theoretical and historical framework needed to assess the effectiveness of current practice and trends in the development of new practices and institutions. The major areas of study will be the tactics and strategies of management and union representatives and the legal and economic constraints on their behavior in the organization of unions, contract negotiation, and contract administration and interpretation.
Prerequisite: MGT 650.
3 Lect Hrs, 3 Credits

MGT 653
Organizational Diagnosis and Change
Focuses on the theory, research, and techniques of organizational diagnosis and change. Students will learn how to engage in systematic structural and behavioral analyses and to design effective strategies for intervention and change.
Prerequisite: MGT 650.
3 Lect Hrs, 3 Credits

Business Administration

MGT 664
The Legal Environment of Business
Seeks to help students broaden their understanding of our legal and regulatory system and how it affects them as business managers. Businesses have become increasingly subject to laws and regulations. Legal and regulatory provisions pervade such aspects of business as the sale of securities; marketing practices; product liability; and business relationships with employees, customers, and other interested parties. This course assists students in developing their ability to meet the legal and regulatory demands and responsibilities of contemporary business.
Prerequisite: MGT 660.
3 Lect Hrs, 3 Credits

MGT 665
International and Comparative Management
Introduces students to the perspectives and dimensions of management and organizations in settings that span national boundaries. Course materials will stress the nature, structure, dynamics, and problems faced by international and multinational organizations. Adaptive and competitive strategic behaviors of firms working in cross-national environments will be analyzed as well as the array of economic, socio-cultural, and political determinants of managerial behavior in these settings. (An international management elective.)
Prerequisites: AF 601, MGT 650, and MGT 660.
3 Lect Hrs, 3 Credits

MGT 667
Entrepreneurship
Sensitizes students to the entrepreneurial process from the conception of an idea to the creation of a new venture. The course provides conceptual frameworks, tools, and techniques to understand different aspects of entrepreneurial process, and helps students evaluate the entrepreneurial career for themselves. Students learn about assessing business opportunities, developing a business plan, understanding various ways of mobilizing resources, creating different forms of new ventures, and building a top management team for the growth of the venture.
Prerequisites: AF 610, AF 620, MAC 670
3 Lect Hrs, 3 Credits

MGT 671
Introduction to Environmental Management
Gives students an understanding of current environmental issues as they relate to managerial decision-making. The issues are examined from the worldwide perspectives of business and society. The course focuses on issues of waste and recycling, air quality (including ozone depletion, global warming, and acid rain), water quality, resource management, biodiversity, and sustainable economic growth. (An environmental management elective.)
Prerequisite: 4 core courses
3 Lect Hrs, 3 Credits

MGT 675
Managing in the Global Economy
Provides students with the opportunity to acquire an in-depth conceptual and operational understanding of a group of countries, with the purpose of acquiring the technical skills necessary to enter, network, structure, manage, and eventually exit effectively from a foreign environment. (An international management elective.)
Prerequisite: 7 core courses.
3 Lect Hrs, 3 Credits

MGT 677
International Perspectives on Business and Government
This course focuses on the conduct of business and the practice of government with respect to business. For business, the course explores differences in managerial practice and the cultural norms and values which help shape them, considering specifically management decision-making patterns, recruitment and promotion practices, and labor-management relations. For government, the course considers the main kinds of politico-economic systems within which managers operate, and how this affects industrial policy, planning, and labor-management relations. (An international management elective.)
Prerequisites: MGT 650, MGT 660
3 Lect Hrs, 3 Credits

MGT 678
Transnational Applied Environmental Management
Involves the design of organizational strategies and structures that respond to and anticipate environmental issues for companies operating in the U.S. and abroad. Special attention is given to implementation issues. The course includes use and critique of an environmental performance assessment instrument. It also discusses corporate responsibility in developing countries and corporate policies and relationships with stakeholders globally. (An environmental management elective.)
Prerequisites: MGT 650, MGT 671
3 Lect Hrs, 3 Credits

MGT 680
Management of Health Organizations
Explores the roles of the health systems manager as planner, organizer, leader, and integrator of health programs. Particular attention will be given to how these roles differ from industry's roles, as well as to the special demands made of the manager in a health systems organization.
Prerequisite: MGT 650.
3 Lect Hrs, 3 Credits

MGT 681
The Health System and Public Policy
Examines the interface of government, health, and the private sector. This course will explore the various roles government plays as promoter, regulator, and buyer of health services.
Prerequisite: MGT 660.
3 Lect Hrs, 3 Credits

MGT 685
Global Industry and Competitive Analysis
Examines techniques of industry and competitive analysis and ways of applying these techniques to gain a better understanding of industry trends and company strategies in sectors of significant importance to the regional economy. (An international management elective.)
Prerequisites: MGT 650, MGT 660, MGT 665
3 Lect Hrs, 3 Credits

Management Science and Information Systems

MSIS 636
Forecasting
Considers the major approaches to forecasting sales or customer volume in business applications. The forecasting activity is an essential prelude to decisions involving capacity planning, staffing, scheduling, inventory management, and financial projections. The subject is important in both service sector and production organizations. Topics include time series methods, causal methods, treatment of seasonal effects, trend effects, the business cycle and combinations of forecasts.
Prerequisites: MSIS 635, and MSIS 640.
3 Lect Hrs, 3 Credits

Business Administration

MSIS 637
Operations Planning and Control
Provides comprehensive coverage of inventory and production systems and the use of quantitative techniques in solving managerial problems arising from the design, planning, and control of such systems. Using managing for quality as a framework, topics addressed in this course include models and decision systems for inventory management under both deterministic and probabilistic demands, lot sizing techniques, material requirements planning (MRP), and scheduling for continuous and intermittent systems.
Prerequisites: MSIS 630, MSIS 635, and MSIS 640.
3 Lect Hrs, 3 Credits

MSIS 638
Management Decision Models
Familiarizes the student with the use of mathematical models as aids towards improving the quality of managerial decision making. The course covers the use of both deterministic optimization techniques and stochastic models for the description and analysis of managerial problems. This course is also intended to develop the student's analytical skills for characterizing and modeling management problems quantitatively. Topics include mathematical programming, network analysis, simulation, queuing, and Markovian decision processes. The course focuses on real-world problem solving and the use of software systems.
Prerequisites: MSIS 630, MSIS 635, and MSIS 640.
3 Lect Hrs, 3 Credits

MSIS 639
Quality Management and Control
Addresses the issues related to assuring the quality of output of a manufacturing or service system and approaches for managing quality. Includes statistical quality control techniques for different transformation processes, quality information systems, and concepts of total quality management such as benchmarking and continuous process improvement.
Prerequisites: MSIS 630, MSIS 635, and MSIS 640.
3 Lect Hrs, 3 Credits

MSIS 641
Decision Support Systems and Simulation
Provides an introduction to the role that computer-based applications play in the solution of ill-structured decision problems. The course introduces students to the fields of Decision Support Systems (DSS) and simulation in various managerial areas. It discusses current techniques and methodologies for the analysis of the kind of problems for which this technology is appropriate. It reviews modern DSS design principles, methodologies, DSS components, and supporting tools. Simulation languages and decision support systems tools are used to illustrate the development of typical applications.
Prerequisite: MSIS 640.
3 Lect Hrs, 3 Credits

MSIS 642
Decision Analysis
Provides an introduction to decision analysis and a framework for analyzing and finding strategies for problems involving choosing alternative actions in the face of uncertainty. The focus of this course is on improving managerial decision making through the use of such techniques as decision trees, payoff tables and Bayesian analysis. Additional topics include value and utility functions, psychological components to decision making, and group decision making.
Prerequisites: MSIS 630, MSIS 635, and MSIS 640.
3 Lect Hrs, 3 Credits

MSIS 645
Systems Analysis and Design
Covers recent approaches to the analysis and design of computer-based information systems, including hands-on use of Computer Aided Software Engineering (CASE) tools for real-world problem-solving. The changing role of the systems analyst in today's organizations is examined. This course critically analyzes systems development methodologies, including life cycle, prototyping, evolutionary, and participative models; discusses effective diagramming and notational techniques now available to define and document functional requirements; and examines current methods used to test and evaluate the accuracy, completeness and usability of documented requirements and convert them into efficient system design. The course will discuss the concept of quality as applied to information systems as well as the role of information systems in managing quality within the organization.
Prerequisites: MSIS 630, MSIS 635, and MSIS 640.
3 Lect Hrs, 3 Credits

MSIS 646
Database Management Systems
Examines the goals and objectives of integrated databases in today's competitive world and discusses data as a resource for total quality management. This course critically examines database modeling techniques and design methods and reviews the nature of database management software. Data analysis techniques and supporting modeling tools are applied in individual and group projects. Database management systems are used extensively in both mainframe and microcomputer environments. Topics include data analysis, database models, database management systems, Computer Aided Software Engineering (CASE) tools for data modeling, storage allocation, and transaction design.
Prerequisites: MSIS 630, MSIS 635, and MSIS 640.
3 Lect Hrs, 3 Credits

MSIS 647
Information Technology for Quality and Competitive Management
Information technology (IT) has collapsed time and distance and is an indispensable element in today's increasingly global and competitive business environments. This course is directed towards the goal of teaching managers to make better use of this technology. The focus is on creating a managerial understanding of the technological and social issues involved with computer and communication technology and using this understanding to attain competitive advantages for the organization. The course is organized around several inter-related modules. These modules relate to the use of IT in providing innovative products and services, its effects on changing business practices in areas such as the retailing, securities, automotive and publishing industries, and the use of IT in managing for quality. Planning methodologies in these areas, as adopted by major consulting companies, will be discussed.
Prerequisite: MSIS 640.
3 Lect Hrs, 3 Credits

Business Administration

MSIS 648
Intelligent Systems for Management
Introduces students to expert systems and neural networks used to aid and improve the quality of decision making. It covers the process of knowledge acquisition, knowledge representation, and building a working expert system. Particular attention is paid to techniques involved in representing and retrieving knowledge in computers. The course introduces students to easily accessible expert systems shells and more sophisticated tools. The course discusses production rules, frames, associative networks, an artificial intelligence language (such as LISP or Prolog), the representation of uncertainty, and recent developments and methods in neural networks, with an emphasis on business applications.
Prerequisite: MSIS 640.
3 Lect Hrs, 3 Credits

MSIS 649
Computer Networks for Management
Communication networks are changing the way businesses are organized in areas such as the retailing, brokerage, automotive, and banking industries. The objective of the course is to familiarize students with the rapidly evolving technology in the areas of data, video, and voice communication. The course studies managerial issues relating to the use and management of advanced technology. Students will learn how to exploit the technology for business purposes such as producing innovative services, improving quality, reducing cost, and providing real-time customer service. The course will help develop an ability to manage the new technologies of the 1990's such as ISDN, advanced intelligent networks, multimedia, fiber optics, and virtual networks towards goals such as growth and portability.
Prerequisite: MSIS 640.
3 Lect Hrs, 3 Credits

MSIS 650
Object Oriented Information Systems
Reviews systems development principles with an object orientation as they relate to the analysis and design of database applications, knowledge base systems, and object-oriented programming. The C++ programming language is used extensively to illustrate the characteristic properties of current object oriented programming techniques: encapsulation, inheritance, and polymorphism.
Prerequisite: MSIS 640.
3 Lect Hrs, 3 Credits

MSIS 678
Operations Management and the Environment
This course examines the environmental impact of the decisions regarding the operations, production, and service delivery functions of an organization. Its focus is on developing strategies and methods to balance the needs of production and service delivery with the needs of the environment. Topics covered include operations process issues such as waste minimization and recycling, product issues such as packaging and design for disposability, the role of environmental regulation in the design of production processes, and impact assessment and management methods and models. (An environmental management elective.)
Prerequisites: MGT 671, MSIS 635

Marketing and Communication

MAC 672
Services Marketing
Examines what differentiates services marketing from the marketing of products. Special attention is focused on the unusually intricate coordination of planning and interaction that the marketing of services requires among the traditional management functions of marketing, operations, human resources, and finance.
Prerequisite: MAC 670
3 Lect Hrs, 3 Credits

MAC 673
Marketing Communications
Helps students develop an integrated communications strategy, blending individual external elements such as advertising, personal selling, sales promotion (including direct marketing and trade shows), and publicity with internal communications. The course is managerial in nature and provides the student with the necessary ability to analyze, plan, implement, and control marketing communications programs.
Prerequisite: MAC 670.
3 Lect Hrs, 3 Credits

MAC 674
International Marketing
Introduces the student to a systematic treatment of marketing on a global scale. Topics include the world market environment and its characteristics, identifying opportunities, and multinational marketing program development, implementation, and control. (An international management elective.)
Prerequisite: MAC 670.
3 Lect Hrs, 3 Credits

MAC 675
Business to Business Marketing
Examines the strategic and tactical issues of marketing business products and services. Special focus on high technology and other areas in which markets are fragmenting, life cycles are accelerating, and pressures for cost containment are increasing while margins are decreasing.
Prerequisite: MAC 670.
3 Lect Hrs, 3 Credits

MAC 676
Marketing Strategy
Focuses on designing managerially defensible marketing plans for the business unit. The focus shifts from single to multiple-product lines, multiple markets and marketing channels. Special emphasis is placed on the analysis of competition and resource requirements. Students will be expected to present and defend not only their strategic marketing plans but also their means of implementing those plans.
Prerequisite: MAC 670.
3 Lect Hrs, 3 Credits

MAC 678
Environmental Marketing
Includes an identification of the "green consumer" and an assessment of consumer attitudes and buying behavior toward environmental issues. Students gain an appreciation of the difficulties in incorporating green considerations in product development, communications, and distribution strategies. (An environmental management elective.)
Prerequisites: MAC 670, MGT 671
3 Lect Hrs, 3 Credits

MAC 679
Export Development and Foreign Sourcing
Introduces techniques and procedures for conducting international operations and trade. The course focuses on operations, government agencies, import/export channel networks, pricing, and the evaluation of international opportunities. It is designed for students considering the formation or acquisition of their own international enterprise and who view exporting as a necessary activity. Since international business is a two-way street, the course also raises the issue of foreign buying and importing. (An international management elective.)
Prerequisite: MAC 670.
3 Lect Hrs, 3 Credits

MAC 681
Analytical Writing in Management
Prepares the management graduate student for advanced writing in other MBA courses, and for effective writing in management. Topics include key ingredients in effective managerial writing; writing as a managerial problem; interpreting and reporting quantitative information; and representative managerial writing situations (e.g., feasibility reports; policy recommendations; research reports).
Prerequisite: Completion of four MBA core courses.
3 Lect Hrs, 3 Credits

MAC 682
Oral Communication for Managers
Helps students improve their oral communication skills. Its purpose is to improve (1) students' organizational effectiveness as managers, and (2) students' personal effectiveness as speakers. Course topics include the communication process, communicating in organizations, the substance of oral communication (argument and persuasion), and the form of communication (organization and delivery).
Prerequisite: Completion of four MBA core courses.
3 Lect Hrs, 3 Credits

Independent Study and Special Topics Courses

AF, MGT, MSIS, MAC 696
Independent Study
Independent study credit is granted only for academic work not normally offered in advanced courses. A student must find a faculty sponsor for his or her independent study project and then file a proposal for the project in the MBA Office. The proposal should be signed by both the student and the faculty sponsor.
Hrs by arrangement, 3 Credits

AF, MGT, MSIS, MAC 697
Special Topics
Addresses a specific topic in a particular discipline. Courses under this title are offered as one-time supplements to a given department's curriculum.
3 Lect Hrs, 3 Credits

Chemistry (MS)

Faculty

Joseph S Alper, PhD, *Yale University* •Theoretical Chemistry

Jean-Pierre Anselme, PhD, *Polytechnic Institute of Brooklyn* •Synthesis and Mechanisms of Organic Nitrogen Compounds

Robert L Carter, PhD, *University of Kansas* •Structural Studies of Inorganic Solids by Infrared and Raman Spectroscopy

Robert I Gelb, PhD, *University of Wisconsin* •Chemistry of Electrode Processes and of Solution Equilibria

Daniel A Laufer, PhD, *Brandeis University* •New Synthetic Reagents •Enzyme Models •Analytical Applications of NMR

Thomas N Margulis, PhD, *University of California, Berkeley* •X-Ray Crystallography of Drugs and Natural Products

Henry A Mariani, PhD, *Boston College* •Polyaromatics •Synthesis and Use of Fluorinated Compounds in Carcinogenesis

Paul M McDonagh, PhD, *Lowell Technological Institute* •Reaction of α-Hydroxycarbonyl Compounds with Hydrazine

John F Reardon, PhD, *Boston University* •Aqueous and Non-aqueous Thermochemistry and Electrochemistry

Lowell M Schwartz, PhD, *Massachusetts Institute of Technology* •Physical Properties of Solutions •Statistical Treatment of Data

Marietta E Schwartz, PhD, *University of Wisconsin* •Cyclophanes and Paddleanes

Hans van Willigen, PhD, *University Of Amsterdam* •Application of Spin Resonance in the Study of Structure and Dynamics

Chi-Hua Wang, PhD, *St Louis University* •Chemistry of Free Radicals in Solution

Walter E Weibrecht, PhD, *Cornell University* •Chemical Education and Teacher Training

Leverett J Zompa, PhD, *Boston College* •Chemistry of Transition Metal Complexes

The Program and Facilities

The requirements for the Master's Degree Program in Chemistry have been designed with a flexibility that accommodates not only students interested in the usual areas of concentration in chemistry, but also those with interests in other, interdisciplinary, chemistry-related fields. As many as nine of the required thirty-three graduate credits may be earned in a related area of study. Candidates may work in such areas as chemical physics and chemical biology, or in such divergent fields as chemical economics, and chemical writing or editing.

All candidates for the master of science degree take required courses in each of three areas: synthesis, structure, and dynamics. These courses, which cut across the traditional boundaries of organic, inorganic, analytical, and physical chemistry, are designed to give students of diverse backgrounds and with diverse aims a broad overview of the recent advances in chemistry. A group of elected courses allows the student to specialize in a field of his or her choice. For students hoping to continue their studies in a research-oriented PhD program, the curriculum offers the opportunity for both extensive course work and a research project.

This flexible program is designed for recent graduates as well as for people who hold positions in high schools, community colleges, and industry and are seeking advancement through further professional training. Attempts will be made to arrange schedules for those who must study part time.

The Department of Chemistry is housed in the University's modern and well-equipped Science Building. Facilities include laboratory space for faculty and graduate student research; glass blowing, machine and electronic shops; and access to the Healey Library's science collection.

Research facilities currently available include:

- Numerous UV, VIS, IR, and FT-IR spectrophotometers
- laser-Raman spectrophotometer
- FT and conventional NMR equipment
- electron spin resonance equipment
- a fully equipped laboratory for X-ray crystallographic studies
- ESR instrumentation
- CW, pulsed, and tunable dye lasers
- electroanalytical equipment
- analytical and preparative gas chromatographs
- high pressure liquid chromatograph
- extensive computing facilities
- atomic absorption spectrometers
- mass spectrometers
- ORD/CD instrument

Degree Requirements

1. The following three Level I courses:
   - Chem 601 (Chemical Dynamics I)
   - Chem 611 (Chemical Structure I)
   - Chem 621 (Chemical Syntheses I)

The student must complete each of these courses with a grade of "B "or better in order to become a degree candidate.

2. Three elective courses. These may be chosen from a list including Chem 602 (Chemical Dynamics II), Chem 612 (Chemical Structure II), and Chem 621 (Chemical Syntheses II), as well as a number of courses offered through the Graduate Program in Chemistry or other UMass Boston graduate programs. Students wishing to take electives offered through other programs should seek approval of the Graduate Program in Chemistry director.
3. Chem 691-692 (Seminars I and II). Students participate in a seminar each semester through enrolling in these courses, and each student makes a total of two oral presentations during the time s/he is enrolled in the program.
4. An original contribution (thesis) in chemistry or in a chemistry related field based on individual research (10 credits maximum), which the student submits and defends.

A minimum of 33 graduate credits is required. Up to six credits in courses in which the student received a grade of "B" or better may be transferred from other institutions subject to the approval of the program director.

Admission Requirements

Please see the general statement of admission requirements for all programs on page 9 of this publication.

The Chemistry Program will recommend admission for those applicants who present evidence of their ability to do graduate work with distinction. Applicants should present:

1. Graduate Record Examination (GRE) scores (aptitude and advanced tests). Graduates of American colleges or universities are not required to present these scores, but are strongly urged to do so. The GRE is required of all candidates with degrees from foreign institutions.
2. Three letters of recommendation.

Chemistry

Course Prerequisites

Please consult UMass Boston's undergraduate catalog for complete information about the undergraduate courses listed here as prerequisites for individual graduate-level courses.

Courses

Chem 601
Chemical Dynamics I
Discussions and outside readings in the areas of chemical and physical equilibria and rate processes. Emphasis on thermodynamics from classical and statistical points of view and on chemical reaction mechanisms.
Prerequisite: Acceptance into the Graduate Chemistry Program or permission of instructor.
Hrs by arrangement, 4 Credits

Chem 602
Chemical Dynamics II
Three or four selected topics of interest to students and staff involved. Typical subjects: molecular transport processes and the Kinetic Theory, photochemistry and excitation transfer processes, surface and electrode rate processes, particle collision dynamics and reactivity, irreversible thermodynamics, interaction of radiation and matter, and molecular state transitions.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by arrangement, 3 Credits

Chem 611
Chemical Structure I
Structure determination and theory. Three or four molecules of interest to the students and faculty involved are chosen. Based on these molecules, discussions, readings and laboratory exercises attempt to show how a chemist determines each structure and how the structure is understood by modern chemical theory.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by arrangement, 4 Credits

Chem 612
Chemical Structure II
In tutorial form. Individual students study advanced structure topics with appropriate staff members.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by arrangement, 3 Credits

Chem 621
Chemical Synthesis I
The tactics and strategy of accomplishing the synthesis of a chemical substance. Examples of organic and inorganic systems.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by arrangement, 4 Credits

Chem 622
Chemical Synthesis II
The synthesis and characterization of a number of representative organic and inorganic compounds.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by arrangement, 3 Credits

Chem 691
Seminar I
Students take Chem 691 or 692 during every semester they are enrolled in the program.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by arrangement, 1 Credit

Chem 692
Seminar II
Students take Chem 691 or 692 during every semester they are enrolled in the program.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by arrangement, 1 Credit

Chem 693
Topics in Physical Chemistry
Topical discussions, each based on elementary principles of physical chemistry and progressing toward recent developments in the field. Open to graduates and advanced undergraduates.
Prerequisite: Chem 341 and 369, or equivalent.
3 Lect Hrs, 3 Credits

Chem 694
Topics in Organic Chemistry
Topical discussions of selected topics of current interest in organic chemistry. Open to graduates and advanced undergraduates.
Prerequisite: Chem 254 or 256, or equivalent.
3 Lect Hrs, 3 Credits

Chem 695
Topics in Inorganic Chemistry
Topical discussion of selected topics of current interest in inorganic chemistry. Open to graduates and advanced undergraduates.
Prerequisite: Chem 370, or equivalent.
3 Lect Hrs, 3 Credits

Chem 696
Independent Study
Study of a particular area of chemistry under the supervision of a faculty member.
Prerequisite: Permission of instructor.
Hrs by arrangement, 1-10 Credits

Chem 697
Special Topics in Chemistry
Graduate level readings in various areas of Chemistry under the supervision of a faculty member.
Prerequisite: Permission of instructor.
Hrs by arrangement, 1-10 Credits

Chem 699
Master's Thesis
Open to degree candidates.
Hrs by arrangement, 1-10 Credits

Clinical Psychology (PhD)

Faculty

Jane Adams, PhD, *New Mexico State University* •Psychobiology •Behavioral Teratology •Human Electrophysiology

Augusto Blasi, PhD, *Washington University* •Developmental Psychology •Adolescence •Moral and Personality Development

Deborah Brome, PhD, *University of Maryland* •Clinical Psychology •Development of Self Concept in Black and White Children and Adolescents •Therapeutic Interventions with Minority Populations

Dennis Byrnes, PhD, *Brandeis University* •Cognitive Psychology •Attention •Auditory Perception •Human Memory

Estelle Disch (Sociology Department), PhD, *Tufts University* •Sociology •Racism and Mental Health •Feminist Therapy

Claire Golomb, PhD, *Brandeis University* •Developmental-Clinical Psychology •Representational Development •Symbol Formation in Children's Art and Play

Susan Gore (Sociology Department), PhD, *University of Pennsylvania* •Medical Sociology •Social Relationships and Mental Health •Stress and Health •Adolescent Stress

Alan Harwood (Anthropology Department), PhD, *Columbia University* •Cultural Anthropology •Ethnic Factors in Health Care •Ethno-psychotherapy

Don Kalick, PhD, *Harvard University* •Social Psychology •Social Perception •Social Aspects of Appearance •Influence of Social and Cultural Values on the Individual

Bernard M Kramer (Emeritus), PhD, *Harvard University* •Social Psychology •Intergroup Relations •Race and Mental Health

Leslie Lebowitz, PhD, *Duke University* •Clinical Psychology •Psychological Trauma •Psychology of Women

Joan Liem, PhD, *Boston University* •Clinical-Community Psychology •Family Processes •Stress and Coping •Schizophrenia •Sexual Abuse

David Lisak, PhD, *Duke University* •Clinical Psychology •Gender and Culture •Treatment of Trauma •Psychological Origins of Violence

Michael Milburn, PhD, *Harvard University* •Social Psychology •Attitudes and Behavior •Social Cognition •Political Psychology

Celia Moore, PhD, *Rutgers University* •Developmental Psychobiology •Neuroendocrine Systems and Behavior •Development of Species-Typical Behavior

Robert Muller, PhD, *Michigan State University* •Clinical Psychology •Developmental Psychopathology •Child Maltreatment •Social Support and Attachment

Richard Ochberg, PhD, *University of Michigan* •Clinical Psychology •Psychosocial Development •Psychobiography

Jill Rierdan, PhD, *Clark University* •Clinical Psychology •Adolescent Depression •Psychology of Women •Assessment of Severe Psychopathology

Barbara Ross (Emerita), PhD, *University of New Hampshire* •History and Systems of Psychology •Philosophy of Science

Ina Samuels, PhD, *University of Michigan* •Physiological Psychology •Neuropsychology •Information-Processing Deficits

Maxwell Schleifer, PhD, *Boston University* •Clinical Psychology •Families with Special Needs Children

Steven Schwartz, PhD, *University of Illinois at Urbana-Champaign* •Cognitive Psychology •Problem-Solving •Metacognition •Learning Programming Skills

Ester Shapiro, PhD, *University of Massachusetts Amherst* •Clinical Psychology •Family Life Cycle Transitions •Family Development

Timothy Sieber (Anthropology Department), PhD, *New York University* •Urban Anthropology •Social Class and Ethnicity •Cultural Issues in Urban Development •Schooling

Carol Smith, PhD, *Harvard University* •Developmental Psychology •Cognitive Development •Conceptual Change in Children and Adults •Developing Scientific Concepts

Edward Strickland, PhD, *New York University* •Experimental Psychology •Visual Perception •Psychological Aspects of the Visual Arts

Helen Tager-Flusberg, PhD, *Harvard University* •Developmental Psycholinguistics •Language Acquisition in Normal, Autistic, and Retarded Children

Castellano Turner, PhD, *University of Chicago* •Clinical Psychology •Racial Attitudes •Social Issues in Psychotherapy

The Program

UMass Boston's PhD Program in Clinical Psychology, housed in the University's Psychology Department, is designed to prepare students to work in a variety of settings, as clinicians and clinical researchers, with mental health problems in children, adolescents, or adults. It follows the scientist-practitioner model of clinical training, providing a strong theoretical background in psychology and related social science disciplines, as well as training in essential clinical skills and in conducting research. Its graduates function as professional psychologists who can translate their basic knowledge into practical applications, and who can advance understanding of key problems through research or other scholarly activities.

The program particularly emphasizes:

- *Interdisciplinary study*. Recognizing that human development itself is multi-determined, the program draws on faculty not only from the Psychology Department, but also from other departments, including the Departments of Anthropology and Sociology. Research training gives students skills for analyzing and solving practical problems of development from a variety of social science perspectives.
- *Theoretical issues in human development from infancy through old age*. Each of the main periods of development is studied from a variety of perspectives within the broader context of the total life cycle.
- *Sociocultural, ethnic, and minority issues*. The course work highlights social and cultural approaches to human development and clinical psychology, especially as they help to build an understanding of the perspectives of ethnic minority and low-income groups. The clinical training prepares graduates to conduct sensitive assessment and therapeutic interventions with members of these groups.
- *Health promotion and problem prevention*. The program trains students in a broad range of assessment and intervention skills that help promote health and adaptation, thus preventing individual and social problems from developing.

Clinical Psychology

Degree Requirements

The Program in Clinical Psychology involves five years of full-time study. Its requirements include

1. Completion of 13 required and six elective courses, taken during the first three years of the program. (Note: All courses must be completed with at least a grade of B.) The required courses are designed to expose students to the specific emphases within the program on interdisciplinary perspectives in human development, ethnic and minority concerns, and problem prevention and health. They also provide students with research training and basic clinical skills in preparation for the practica and internship. Required courses include the following:

   Psych 601 and 602 (Assessment and Testing I and II)
   Psych 610 (Culture and Mental Health)
   Psych 611 and 612 (Developmental Psychopathology I and II)
   Psych 620 (Intervention Strategies)
   Psych 641 and 642 (Interdisciplinary Perspectives on Life Span Development I and II)
   Psych 660 (Physiological Psychology)
   Psych 670 (Advanced Statistics)
   Psych 675 (Research Methods in Clinical Psychology)
   Psych 680 (History and Systems of Psychology)
   Psych 790 (Professional Standards and Ethics)

   Students also take six elective courses selected from among the three areas listed below. In general, students will be expected to take two courses from each of the three areas; they may, however, propose a different distribution of elective courses with appropriate justification and with the approval of the program director.

   Group A: Normal and Abnormal Development

   This group of courses covers development in a range of areas, across the life span or at particular stages . Through course work in this category, students acquire competence in the study and analysis of the biological, cognitive/affective, and social bases of behavior, and of individual behavior and individual differences. Courses in this area may include

   Language and Cognitive Development

   Developmental Disorders

   Symbolic Play and Child Art

   Psychological Trauma

   Severe Psychopathology

   The Psychology of Gender

   Moral Development

   Group B: Ethnic and Minority Perspectives

   Courses in this area emphasize the program's focus on ethnic and minority perspectives. Courses in this area may include

   Ethnic Validity in Psychotherapy

   Racism and Mental Health

   Cross-Cultural Approaches to Healing

   Group C: Specialized Assessment and Intervention Techniques

   The courses in this category are designed to build on those required courses that focus on psychodiagnosis, psychological assessment, intervention procedures, and program evaluation. Courses in this area may include

   Diagnostic Interviewing

   Advanced Projective Techniques

   Family Systems and Family Therapy

   Psychopharmacology

   Interview Research

   Health Psychology

   Therapy with Children

2. Completion of two years of clinical practicum. One of the key components of the Clinical Psychology Program is systematic intensive training in the application of basic knowledge to the solution of human problems. Such training is achieved through the required practica, which students complete during the second and third years of the program. Students spend two days a week in practice in a field agency (e.g. community mental health center; school for emotionally disturbed children) that provides supervised experience with client problems and the opportunity to apply a wide range of assessment and intervention techniques. Along with the field component, students enrolled in a practicum attend a seminar on campus once a week.

3. A master's thesis. Students are not admitted into the Clinical Psychology Program for a terminal master's degree. A master's degree is granted, however, usually sometime after the second year, and after the student has completed 48 credits of course work, one year of part-time practicum, and an approved master's thesis. This thesis gives students an opportunity to apply the knowledge gained in the two-course research methods sequence (Psych 670 and 675). The project done for the master's thesis may be conducted in either a field or laboratory setting, and should maintain an emphasis on interdisciplinary analysis of a particular problem. Students enroll for up to 6 master's research credits (Psych 699) during their second year.

4. A comprehensive examination, usually taken during the third year. This examination is designed to assess the student's mastery of broad issues in human development and clinical psychology. The examination covers these general areas: major theoretical issues, cross-cultural i ssues, developmental issues, and clinical practice. The examination gives students an opportunity to demonstrate their understanding of the interrelationships among the diverse perspectives represented in the program, and to demonstrate the attainment of professional competence for further study at the doctoral level. Students completing the comprehensive examination successfully are admitted to candidacy.

5. A doctoral dissertation, which should be completed by the end of the fourth year. Completion of a dissertation is one of the most important requirements of the doctoral program. The dissertation is an original empirical project that makes a substantive contribution to the knowledge base in human development or clinical psychology. The dissertation is supervised by a primary advisor and a doctoral committee consisting of at least three faculty members, one of whom comes from a department outside psychology. The committee is responsible for approving the thesis proposal, overseeing the data collection and analysis, and reviewing the dissertation. The dissertation must be approved by the doctoral committee, and an oral defense must be successfully completed.

6. An internship, typically done in the fifth year, after the student has completed all other requirements. It involves the satisfactory completion of a one year full-time (or two years half-time) APA-approved clinical internship in an outside agency. The internship is the logical extension of the practica. It is designed to complete the student's preparation for functioning as an independent professional clinician.

Clinical Psychology

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9, and the "Special Instructions for Applicants to Individual Programs" section at the back of this publication.

Students are admitted to the Clinical Psychology Program to work toward the PhD degree only; the program does not offer a terminal master's degree. Applications are due in the Graduate Admissions Office of the University by January 2, for enrollment the following September. There are no spring semester admissions in the Clinical Psychology Program.

Students wishing to apply for admission to the program must complete the University of Massachusetts Boston Graduate Admission Application Form, with the special supplement for the Clinical Psychology Program. Special attention should be paid to the personal statement, which should include all relevant background experience, academic interests, and professional goals. A copy of all application materials can be found at the back of this publication.

Students must also meet the following requirements:

- A minimum of 6 courses in psychology, or closely related social science field, including a course in statistics.
- Scores on the general aptitude (verbal, quantitative, and analytic) and advanced psychology sections of the Graduate Record Examination (GRE) are required. The Miller Analogies Test (MAT) is optional.

The Clinical Psychology Program is especially interested in receiving applications from individuals who have had background experience in some human service field, or have worked in a mental health setting, and who have had research experience. Highly qualified applicants who have a demonstrated commitment to a career serving the needs of urban populations will be given priority. In keeping with the mission of the University, and the particular emphases in the program, individuals from a variety of ethnic and minority backgrounds are strongly encouraged to apply.

The admissions committee will schedule interviews for all finalists, once applications have been reviewed. Interviews are considered an important part of the application process, and whenever possible are held on campus. The program expects to admit eight to ten students each year.

On acceptance, each student is matched with an advisor, based on his or her research and clinical interests. The advisor works closely with the student throughout the course of study, helping to plan course work, select practicum opportunities, and guide the student's research training.

Eligibility for Course Enrollment

Graduate courses in the Clinical Psychology Program are ordinarily open only to regularly matriculated students in the program. Students matriculated in other graduate programs who wish to enroll in a graduate psychology course need permission of the instructor and of the program director.

Courses

Please note: Not all courses are offered every semester. Some elective course offerings currently being planned are not listed below. The most current information is available from the program office.

Psych 601
Assessment and Testing I
As part one of a two semester foundations course on diagnostic testing and assessment, this course trains students to administer, score, and interpret tests of cognitive and intellectual functioning. Issues pertaining to test construction and the standards and ethics of psychological testing provide the context for assessment training. In addition, students learn to conduct an assessment interview and are encouraged to articulate for themselves a philosophy of testing. Special attention is given to the issue of cultural bias in standard psychological tests.
4 Lect Hrs, 4 Credits

Psych 602
Assessment and Testing II
This course, a continuation of Psych 601, is part two of the clinical diagnostic testing and assessment sequence. It instructs students on the administration, scoring, and interpretation of objective and projective tests that assess the personality and the social/emotional functioning of children, adolescents and adults. Emphasis is placed on the integration of cognitive, intellectual, and personality test data in presenting a comprehensive and culturally congruent assessment of individuals.
4 Lect Hrs, 4 Credits

Psych 610
Culture and Mental Health
This course focuses on three issues: 1) the role of culture in the development of psychological health and psychopathology; 2) variations across cultures in defining and understanding mental health and deviant behavior; and 3) the importance of cultural context in constructing ways to prevent and/or ameliorate psychological problems. Emphasis is placed on the social-cultural contexts of United States minority groups and on what such contexts imply for mental health policy and intervention strategies.
3 Lect Hrs, 3 Credits

Psych 611
Developmental Psychopathology I
The first course in a two-semester sequence focusing on the development of psychopathology across the life span. This course introduces students to the field of childhood psychological disorders, their etiology, epidemiology, diagnosis, and treatment. It examines biological, normative developmental, familial, and sociocultural factors involved in childhood symptomatology.
Prerequisite: Psych 641, or permission of instructor.
3 Lect Hrs, 3 Credits

Psych 612
Developmental Psychopathology II
A course focusing on psychological problems and disorders that typically manifest themselves during early or later adulthood. Adult disorders are examined from biological, psychological, and sociocultural perspectives. Students become familiar with the major syndromes classified in DSM-IV. This course is a continuation of Psych 611.
3 Lect Hrs, 3 Credits

Psych 620
Intervention Strategies
An introduction to effective, health-promoting individual, family, group, and social environmental interventions designed to address a wide range of developmental problems. The course employs a case study method: students are presented with a series of case histories and asked to determine the level and mode of intervention most appropriate in each case. Preventive intervention is also stressed.
3 Lect Hrs, 3 Credits

Psych 627
Cross-Cultural Approaches to Healing
This course focuses on the elements of healing and on the relation of healing to psychotherapy. Scientific studies, films, and ethnographic and biographical accounts of healing rituals are used to analyze both universal and culture-specific features of healing practices. Healing traditions of US ethnic groups and their implications for mainstream psychotherapeutic treatment are considered.
3 Lect Hrs, 3 Credits

Clinical Psychology

Psych 628
Trauma: Psychological Response and Recovery
This course examines the consequences and resolution of exposure to traumatic stress. Students become familiar with the prevailing theoretical models in the field, common features of the psychological aftermath, current treatment modalities, and the empirical research which has defined and substantiated this field. Issues to be addressed include the intersection of traumatic stress with sociocultural context, gender, ethnicity, and life span development. In addition, the course explores assessment and diagnostic issues relevant to this area, as well as the impact on the therapist/observer of working with traumatized people.
3 Lect Hrs, 3 Credits

Psych 641
Interdisciplinary Perspectives on Life Span Development I
Taking an interdisciplinary approach, this two-semester course sequence focuses on themes whose importance endures throughout the life cycle. In the fall semester, a number of issues are examined from the psychological perspective. These include issues of early attachment, the effects of separation, the emergence of a core gender identity and of sex roles, the development of cognitive-social competence, prosocial behavior, peer relations, and adolescent and adult identity.
3 Lect Hrs, 3 Credits

Psych 642
Interdisciplinary Perspectives on Life Span Development II
This course, a continuation of Psych 641, introduces students to sociological and anthropological perspectives on human development across the life span. A major focus is on "points of transition" in the human life cycle, with special emphasis on phases of adolescent and adult human development.
3 Lect Hrs, 3 Credits

Psych 646
Linguistic and Conceptual Development
This course focuses on aspects of child development that lie at the intersection of language and cognition. It reviews and analyzes different theoretical perspectives on the relation between language and thought. It also investigates a number of central conceptual issues in developmental psychology, within such different frameworks as intentionality, categorization, perception, perspective-taking, emotions and theory of mind. Linguistic and cognitive aspects of development in these areas are studied in populations both normal and atypical (e.g. sensory-impaired, mental retardation, and autism).
3 Lect Hrs, 3 Credits

Psych 660
Physiological Psychology
This course provides an overview of basic concepts in neuroanatomy, neurophysiology and neurochemistry, with particular emphasis on recent developments in these areas that are of particular relevance to clinical psychology. The course also emphasizes the basic assumptions and limitations of the techniques utilized to investigate brain-behavior relationships.
Prerequisite: Graduate standing or permission of the instructor
3 Lect Hrs, 3 Credits

Psych 662
Psychopharmacology
The aims of this course are threefold: 1) to understand the cellular and molecular mechanisms of action of psychoactive drugs, 2) to understand the facts and theories underlying the use of drugs in the treatment of neurobehavioral ("mental") and neurological disorders, and 3) to understand the processes of addiction and the properties of drugs of use/abuse. The course focuses first on the fundamental aspects of neurochemical activity in the brains of normal individuals, then on each of the major neurotransmitters, related neurological diseases and/or "mental" disorders, and the major drugs that act on each particular neurotransmitter system. The student should gain 1) an understanding of why pharmacological approaches to therapy are used, how they work, and relevant side effects, and 2) an understanding of the pharmacodynamics of substances of abuse. For the clinician, this should permit informed management of future clients who are dependent on the use of psychoactive compounds.
Prerequisite: Psychology 660 or permission of instructor.
3 Lect Hrs, 3 Credits

Psych 670
Advanced Statistics
This course instructs students in advanced statistical topics and provides training in the use of the corresponding computer methods. The course emphasizes the statistical methods of most general interest and importance to social scientists: multiple regression analysis and analysis of variance.
Prerequisite: Psych 270, or equivalent undergraduate course in statistics.
3 Lect Hrs, 3 Credits

Psych 675
Research Methods in Clinical Psychology
This course focuses on the basic principles and techniques of research in clinical psychology. Topics include developing research hypotheses, the nature of correlational and causal relationships, survey research, group-comparison experimental research, single-subject and quasi-experimental research, and ethical issues in clinical research.
Prerequisite: Psych 670.
3 Lect Hrs, 3 Credits

Psych 677
Psychometrics and Program Evaluation
A course covering theories of test construction and research designs appropriate for applied settings. Topics include reliability, item analysis, and factor analysis as tools in test construction. The course also considers research designs and statistics appropriate for research in applied settings.
3 Lect Hrs, 3 Credits

Psych 680
History and Systems of Psychology
This course explores the theoretical and methodological problems of contemporary psychology from a historical perspective. It provides a broad overview of psychology's development as an independent discipline, and of the development of the various sub-specialties in the field. By examining intellectual antecedents and underlying assumptions, the course seeks to evaluate the significance of new movements and methods.
3 Lect Hrs, 3 Credits

Psych 699
Master's Research
Students are given individual supervision in research by a member of the psychology department faculty or faculty in related fields. Each student is helped to design and carry out an original master's thesis using an appropriate methodology. The course is repeatable and must be taken twice, for a total of six credits. The six credits are awarded to the student when the thesis is approved.
Hrs by arrangement, 3 Credits

Clinical Psychology

Psych 719
Severe Psychopathology
This seminar considers the domain of severe psychopathology. Its focus is on schizophrenia; other disorders are considered in relation to what is generally considered this most disruptive and chronic of psychopathologies. Participants consider in depth the conceptual and empirical status of schizophrenia as a discrete diagnosable disturbance. In light of that consideration of schizophrenia, they go on to evaluate, on metatheoretical, theoretical, and empirical grounds, the validity of different models of etiology. Finally, consideration is given to effective treatments for schizophrenics, and to the social repercussions of ineffective treatments, as seen through issues of institutionalization and deinstitutionalization, and the plight of homeless severely disturbed individuals.
Prerequisite: Psych 612.
3 Lect Hrs, 3 Credits

Psych 720
Family Systems And Family Therapy
The course builds on the introduction to family therapy provided by Psych 620. It focuses on the historical and conceptual background of family therapy; the major theoretical models and key concepts guiding practitioners in the field; current research findings regarding the effectiveness of family interventions; contemporary critiques of family theory and therapy; and assessments of the appropriateness of various family therapy models for low income, ethnic minority, and immigrant families. Through videotapes and clinical case material, students are exposed to the work of some of the major family therapists practicing today.
Prerequisite: Psych 620.
3 Lect Hrs, 3 Credits

Psych 724
Health Psychology
This course introduces students to the disciplines of health psychology and behavioral medicine, providing them with historical and conceptual background; a look at the major theoretical models, with a focus on social learning theory; key concepts in the field; and current research findings of importance to health psychology and behavioral medicine. Intervention models reviewed range from community-based public health interventions to individual psychotherapy. .
3 Lect Hrs, 3 Credits

Psych 775
Interview Research
This course is a theoretical introduction to, and a practical workshop in, narrative methods of research. It focuses on interviewing people about their lives and interpreting their accounts from a psychosocial perspective. It also addresses the relationship between narrative perspectives and interpretive approaches to psychotherapy.
Prerequisite: Graduate standing.
3 Lect Hrs, 3 Credits

Psych 790
Professional Standards and Ethics
The primary goal of this course is to insure that students are familiar with the current professional standards and ethical principles of the American Psychological Association. It studies conduct in research and teaching, and because this is a clinical psychology program, it focuses particularly on the standards and principles which guide the professional behavior of clinical psychologists. Students learn, through a close inspection of each of the ethical principles and the use of case studies, how to analyze and respond to a range of problems and situations.
3 Lect Hrs, 3 Credits

Psych 796
Independent Studies in Human Development or Clinical Psychology
Independent work under the supervision of a faculty member on special topics in human development or clinical psychology.
Prerequisite: Permission of instructor and program director.
Hrs by arrangement, 1-3 Credits

Psych 798
Practicum in Clinical Psychology
This practicum course is designed to provide students with supervised clinical training experiences in a field setting, including the opportunity to apply a range of assessment and intervention techniques. A weekly three-hour seminar complements the clinical experiences. The course is repeatable and must be taken four times for a total of 24 credits.
3 Lect Hrs, Practicum Hrs by arrangement, 6 Credits

Psych 891
Seminar in Teaching Psychology
This seminar is required of all fourth year students who are teaching undergraduate psychology courses. The seminar provides didactic presentations combined with class discussion and supervision on a variety of topics including pedagogy, techniques for effective teaching, teaching diversity in psychology, writing and delivering lectures, and conceptualizing exams.
Prerequisites: Status as fourth year graduate student in Clinical Psychology Program, successful completion of comprehensive exam.
3 Sem Hrs, 3 Credits

Psych 896
Independent Study in Clinical Psychology
This course involves the comprehensive study of a particular topic in clinical psychology under the direction of a faculty member. An independent study course can fulfill one elective requirement in the A, B, or C area. A detailed proposal must be submitted to the faculty member prior to registration.
Hrs by arrangement, 3 Credits

Psych 898
Internship in Clinical Psychology
Doctoral candidates in clinical psychology are required to complete this one-year full-time predoctoral internship in a setting approved by the American Psychological Association. During the internship, students have a variety of clinical experiences including assessments and therapeutic interventions. They are closely supervised by mental health professionals, some of whom must be licensed clinical psychologists. A letter from the on-site internship director documenting satisfactory completion must be in the student's file at the University before the degree can be granted.
18 Credits (9 for each semester)

Psych 899
Dissertation Research
Research, conducted under supervision of the doctoral committee, leading to the presentation of a doctoral dissertation.
Hrs by arrangement, 1-9 Credits

Computer Science (PhD, MS)

Faculty

Ethan Bolker, PhD, *Harvard University* •Combinatorial Analysis •Queuing Theory •Performance Modeling

William Campbell, PhD, *St Andrews University* •Programming Languages and their Implementation •Compilers

Richard Eckhouse, PhD, *SUNY at Buffalo* •Computer Architecture

Peter Fejer, PhD, *University of Chicago* •Logic •Theoretical Computer Science

George Lukas, PhD, *Brandeis University* •Programming Languages •Software Engineering

Joan Lukas, PhD, *Massachusetts Institute of Technology* •Theoretical Computer Science •Compilers

Robert A Morris, PhD, *Cornell University* •Text Processing •Document Preparation Systems

Kenneth Newman, PhD, *Cornell University* •Software Engineering •Algebra

Elizabeth O'Neil, PhD, *Harvard University* •Operating Systems

Patrick E O'Neil, PhD, *Rockefeller University* •Database Systems

Dan Simovici, PhD, *University of Bucharest* •Database Systems •Theoretical Computer Science

Richard Tenney, PhD, *Cornell University* •Computer Networks

The Programs

The Department of Mathematics and Computer Science of the University of Massachusetts Boston offers programs of graduate study leading to the PhD and MS degrees in computer science.

The Computer Science PhD Program prepares students for research careers in the software industry and in academia. It combines a commitment to theory with significant experience in software development. The areas in which students may carry out dissertation research are currently programming languages, databases, digital typography, neural networks, computer architecture, computer networks, and operating systems.

The MS program is intended as preparation for professional careers in research and commercial applications, although it will also provide the background for further graduate work leading to the PhD degree. Emphasis is given to the integration of theoretical knowledge with practical applications. The central course in the curriculum is a two-semester sequence in software engineering.

Faculty interests in computer science include software engineering, database systems, programming languages, compilers, computability theory, formal languages, semantics, operating systems, computer communication protocols, queuing theory, and office automation systems and electronic publishing. The department's computer laboratory operates a network of SUN workstations using the UNIX operating system and several other kinds of computing equipment. The department is also a member of Internet.

All graduate courses are scheduled in late afternoon and evening. The program is open to full-time and part-time students as well as to those non-degree-seeking students who want to strengthen specific skills by taking single courses.

Degree Requirements

The PhD in Computer Science

The program requires 48 credits of course work, a minimum of 15 credits of dissertation research, at least one year of full-time status, several examinations and a doctoral dissertation containing original results. A GPA of 3.5 must be maintained at all times.

Several courses in theory and software engineering are required. Details may be found in the brochure published by the department.

Program examinations include the following:

A. Each student must pass the department's technical writing examination (TWE), which tests the student's ability to express practical and theoretical ideas in computer science in clear, correct English prose. The TWE is offered every semester and may be taken repeatedly.

B. After 30 credits of graduate work have been completed each student takes a written examination to verify the breadth of his or her knowledge. The examination covers theoretical computer science and two of the following three areas:

   Programming Languages

   Databases

   Systems

   Students who leave the program at this point will be awarded a master's degree in computer science if their course work satisfies the requirements for the MS degree in computer science as specified below.

C. After 42 credits of graduate work have been completed and the TWE has been passed each student takes an oral examination to verify his or her depth of knowledge in an area of specialization.

   Note: Examinations B and C may be retaken once.

   After passing examinations A, B, and C, and maintaining the required GPA, the student is admitted to candidacy for the PhD. After completing 48 credits of graduate work, and no later than one year after passing the oral qualifying examination, each candidate will present a dissertation proposal to the thesis committee. The thesis committee may accept or reject the proposal.

The Major Advisor and the Thesis Committee

Every incoming PhD student will have an advisor appointed by the department, until a major advisor is appointed through the procedure described below.

When a student has found a faculty member with whom to work, the faculty member (referred to as the major advisor) applies to the computer science graduate faculty for permission to direct the dissertation. This selection of the major advisor must take place no later than the semester when the student intends to take the oral examination. The major advisor is appointed by the graduate program director after approval by a meeting of the computer science graduate faculty. The major advisor is then responsible for monitoring the student's progress. After the student passes the oral qualifying examination the major advisor will propose a thesis committee. This committee is appointed immediately after the student passes the oral qualifying examination.

The doctoral program must be completed within seven years of matriculation. After that limit, individual approval must be obtained on a yearly basis.

The MS in Computer Science

Candidates must complete a minimum of 30 credits, at least 24 of which must be in courses numbered 600 or above. Software Engineering I and II (CS 610 and CS 612), and the accompanying laboratory courses (CS 611 and CS 613) are required courses and carry a total of 12 credits. Students must take this sequence during the final part of their course work. Students must also choose two theoretical electives and four applied electives from among the following courses:

Theoretical Electives

- Theory of Computation (CS 620)
- Formal Languages (CS 622)
- Analysis of Algorithms (CS 624)
- Introduction to Theoretical Computer Science (CS 420)
- Mathematical Logic (Math 470)

Computer Science

Applied Electives

User Interface Design (CS 615)
Database Management Systems (CS 630)
Database Models (CS 632)
Architecture of Database Systems (CS 634)
Operating Systems (CS 640)
Computer Architecture (CS 644)
Computer Communication Networks (CS 646) Compilers I and II (CS 650 and CS 652) Semantics (CS 654)
Logic Programming (CS 656)
Document Preparation and Text Processing Systems (CS 662)
Image Processing (CS 664)
Artificial Intelligence (CS 670)
Neural Networks (CS 672)
Parallel Programming (CS 752)
High Performance Computer Architectures (CS 744)

Applied electives may also include up to two of the following upper-level undergraduate courses:*

Operating Systems (CS 440)
Graphics (CS 460)
Artificial Intelligence (CS 470)

*Note: No more than two of these upper-level undergraduate courses may be used for graduate credit in the MS program.

Minimum Requirements for Graduate Credit

The minimum grade for graduate credit is C. No more than two grades below B- may count for credit. Students may register, with the approval of the program director, for three credits as CS 699 (Research for MS Thesis) in order to write an MS thesis. This option is open for students whose grade point average is at least 3.5.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9 of this publication.

The PhD in Computer Science

Applicants for the PhD program must have the equivalent of a bachelor's degree in computer science and must take the general Graduate Record Examination. A test score is not required if the applicant holds an advanced degree from a US university. Applicants with degrees from foreign universities must also submit TOEFL scores. The department reviews applications and recommends candidates to the dean of Graduate Studies for admission to the PhD program.

The MS in Computer Science

Entrance requirements include a good working knowledge of computer science and mathematics. Each applicant's background will be assessed individually with respect to these skills. Roughly 21 semester credit hours of computer science and 6 semester credit hours of mathematics beyond calculus would provide a minimum competency. The program requires the GRE test. A test score is not required if the applicant holds an advanced degree from a US university. Applicants with degrees from foreign universities must also submit TOEFL scores.

The MS program is designed to accommodate students with a wide range of backgrounds. In particular, the undergraduate degree need not be in computer science. Students can make up deficiencies by taking specific undergraduate courses.

A typical set of courses the program recommends might include:

CS 110 and CS 210 (a sequence of courses in Pascal),

CS 240 (Programming in C and Assembler Language)

CS 310 (Advanced Data Structures and Algorithms),

CS 320 (Applied Discrete Mathematics),

CS 350 (The Structure of Higher Level Languages).

Other undergraduate courses may be necessary, depending on the background and experience of the candidate. These courses are described in the Computer Science Information booklet, available from the program office, and in the University's undergraduate catalog.

Course Prerequisites

Please consult UMass Boston's undergraduate catalog for complete information about the undergraduate courses listed below as prerequisites for individual graduate-level courses.

Courses

CS 610
Advanced Software Engineering I
Introduction to modern program development techniques. Students are exposed to such current advanced design and implementation techniques as object-oriented programming, and develop programs in these styles. Programming projects for the course include design and test plan documentation as well as implementation in modern programming languages such as C++ or the Common Lisp Object System. Completion of this course with a grade of B or better is required for admission to the remainder of the advanced software engineering sequence (CS 611, CS 612 and CS 613). This course is offered every fall and spring semester.
Prerequisites: CS 310, CS 320, proficiency in C programming.
3 Lect Hrs, 3 Credits

CS 611
Laboratory in Software Engineering I
First half of a two-semester laboratory course in which students, working in small groups, specify, design, implement, and document a large software project.(Course offered in the fall only.)
Prerequisite: Completion of CS 610 with a grade of "B" or better.
Corequisite: CS 612.
3 Lect Hrs, 3 Credits

CS 612
Advanced Software Engineering II
This course is concerned with long-term, large-scale programming projects. Topics include software engineering management, problem analysis, problem specification, system design, system documentation, testing, performance evaluation, system maintenance, current and future software environments. Modern design and implementation methodologies such as object-oriented programming, rapid prototyping, and others are discussed. (Course offered in the fall only.)
Prerequisite: Completion of CS 610 with a grade of "B" or better.
Corequisite: CS 611.
3 Lect Hrs, 3 Credits

CS 613
Laboratory in Software Engineering II
A continuation of CS 611. (Course offered in the spring only.)
Prerequisites: CS 611, 612.
3 Lab Hrs, 3 Credits

Computer Science

CS 615
User Interface Design.
An introduction to user interface design, which encompasses the design of the user interface and the functional design of the whole system. Students read and critique papers and articles, evaluate and critique existing user interfaces and design interfaces of their own. Working in small groups, they use either interface prototyping tools or conventional rapid prototyping systems to construct an experimental interface.
Prerequisites: CS 310, 320.
3 Lab Hrs, 3 Credits

CS 620
Theory of Computation
Functions computable by programs. Recursive functions and Turing machines; simulation and diagonalization. Universality and unsolvable problems. Kleene's hierarchy and the recursion theorem. Gregorczyk's hierarchy and Ackermann's function. Abstract complexity. Formal languages and classes of automata. Inherently difficult combinatorial problems.
Prerequisites: CS 310 and CS 320.
3 Lect Hrs, 3 Credits

CS 622
Theory of Formal Languages
This course treats languages from an abstract point of view as defined by formal grammars and by families of abstract machines. The Chomsky hierarchy and associated automata are covered. Emphasis is placed on context free languages. Careful mathematical definition and proof is stressed throughout. This course does not involve programming. This course is of special interest to students interested in linguistics and in the theory of programming language compilers.
Prerequisites: CS 320, 350 or permission of instructor.
3 Lect Hrs, 3 Credits

CS 624
Analysis of Algorithms
Basic techniques for designing algorithms: divide and conquer, the greedy method, dynamic programming, etc. Applications to searching and sorting algorithms. Complexity of parsing. The fast Fourier transform and its applications (evaluation of polynomials and arithmetical problems). Lower bound theory. NP-hard and NP-complete problems. Probabilistic estimates of algorithms.
Prerequisite: CS 320.
3 Lect Hrs, 3 Credits

CS 630
Database Management Systems
Databases and database management systems. Physical database organization. The relational model. Relational algebra syntax and semantics. Relational calculus (tuple and domain oriented). Relational calculus vs. relational algebra. INGRES and QBE. Query optimization. Non-relational systems (hierarchical and network DBMSs). Distributed databases.
Security aspects of databases.
Prerequisites: CS 310 and CS 320.
3 Lect Hrs, 3 Credits

CS 632
Database Models
A comparative study of database model, relational and non-relational. The entity-relationship model. Extensions of the relational model. The universal relation assumption. The functional model and DAPLEX. Semantic database models. Object-oriented databases.
Prerequisite: CS 630.
3 Lect Hrs, 3 Credits

CS 634
Architecture of Database Systems
A study of the architecture and performance of centralized and distributed database management systems. The study covers the following topics in depth: atomic actions; the transaction and its implementation as an atomic action, serial and concurrent execution of transactions, concurrency control mechanisms for centralized and distributed database systems; concurrency control problems such as deadlock, transaction roll-back and transaction blocking; serialization and database recovery.
Prerequisites: CS 630, CS 440 or permission of the instructor.
3 Lect Hrs, 3 Credits

CS 640
Operating Systems
Structure and dynamics of operating system software. Operating systems as event driven software: interrupt processing and asynchronous operation. Memory management, scheduling, concurrency, consideration, device drivers. UNIX as a major example.
Prerequisites: CS 310 and two graduate computer science courses, or CS 440; and knowledge of assembly language.
3 Lect Hrs, 3 Credits

CS 642
Performance Modeling
A survey of the techniques for the mathematical modeling of complex systems and the analysis of models using both analytical techniques and simulation. Attention is paid to the use of queuing theory models for understanding and predicting computer operating system performance.
Prerequisites: CS 440 and Math 345 or permission of the instructor.
3 Lect Hrs, 3 Credits

CS 644
Computer Architecture
An examination of the designs for hierarchical memory systems including caches and virtual memory systems, pipeline design techniques, characteristics of RISC/CISC machines, multicomputer systems including multiprocessors and loosely-coupled computer systems, the micro engine and micro-programmed machines, vector and array processors, and the cost/performance trade-offs in the all of the above designs.
Prerequisites: CS 240, CS 241 and CS 310.
3 Lect Hrs, 3 Credits

CS 646
Computer Communications Networks
Need for computer networks. Architectures of Networks. Architectures of systems. ISO Reference Model. Standardization efforts. Specification of protocols. Examples of protocols and networks.
Prerequisite: CS 440 or permission of the instructor.
3 Lect Hrs, 3 Credits

CS 650
Compilers I
Introduction to compiler organization and construction techniques. Lexical analysis, parsing, symbol tables and attributed syntax trees. Internal forms of the source program. Storage allocation, error recovery, code generation, code optimization. Translation systems. Programming practice writing a compiler for a reasonably large subset of ALGOL, Pascal, or similar algebraic language.
Prerequisite: CS 350 or equivalent.
3 Lect Hrs, 3 Credits

CS 652
Compilers II
Extension of topics in CS 650 with emphasis on code generation and optimization. Case studies of existing implementations. Team projects leading to relatively large-scale implementations.
Prerequisite: CS 650.
3 Lect Hrs, 3 Credits

CS 654
Semantics of Programming Languages
This course presents some of the theoretical foundations of software engineering. Its main objectives are to enable programmers to formulate rigorous statements about the behavior of programs and to define precisely the meaning of different constructs occurring in programming languages.
Prerequisites: CS 320, 350, 622 and Math 470 or the equivalent.
3 Lect Hrs, 3 Credits

Computer Science

CS 656
Logic Programming
A course in theoretical and practical aspects of logic programming. Topics include semantics of logic programming, negation in logic programming, metalevel reasoning, concurrency, databases and expert systems.
Prerequisites: CS 310, Math 470 or permission of the instructor.
3 Lect Hrs, 3 Credits

CS 662
Document Preparation and Text Processing Systems
An applied course in contemporary document preparation systems. This course will vary in content, with topics chosen from among the study of interactive editors, text formatters, typesetting systems, digital font design and production, publication graphics system, and author assistance software. Students participate in a major team project to design and implement a substantial portion of a system appropriate to the topic. Important current systems such as TeX, MetaFONT, TROFF, Scribe and EMACS are studied and criticized, where possible by a study of their source code.
Prerequisites: CS 310 and at least one course at the level of CS 440 or above.
3 Lect Hrs, 3 Credits

CS 664
Image Processing
Techniques of digital image processing. Topics include processing in the image and spatial frequency domains; Fourier and other transforms, continuous and discrete convolution and filtering; Grey-level transforms, feature identification, image encoding, image enhancement; applications to models of human and machine vision.
Prerequisites: Math 240, 260.
3 Lect Hrs, 3 Credits

CS 670
Artificial Intelligence
The application of the methods of artificial intelligence programming to state of the art expert systems, advice taking systems and natural language understanding software. The course is project oriented. Students create prototype systems, working in teams and become familiar with major research journals.
Prerequisites: CS 350, CS 470, Math 470 or equivalent background in logic and LISP, and permission of the instructor.
3 Lect Hrs, 3 Credits

CS 672
Neural Networks
An introduction to artificial neural networks. Topics include a survey of natural neural network models, perceptrons and their limitations, multi-layer networks and back propagation, Hebbian learning, unsupervised competitive learning, relations to automata and computability theory, adaptive resonance theory, applications of connectionist models of computing to various domains, including pattern recognition, databases, etc.
Please note: An understanding of multi-variable calculus and associated linear algebra including gradient methods is required. Some exposure to statistics and probability is advised.
Prerequisite: Permission of the instructor.
3 Lect Hrs, 3 Credits

CS 696
Special Topics I and II
Topics of current interest in the field, according to student and faculty areas of specialization. Course content varies according to the topic and will be announced prior to registration.
1 to 3 Credits, to be determined by instructor

CS 699
Research for MS Thesis
A one-semester supervised practicum course to help students complete the required thesis, which must be a substantial piece of research on some aspect of computer science. The master's thesis may take the form of a theoretical paper or a report on a piece of software.
Prerequisite: 15 graduate credits.
Hrs by arrangement, 3 Credits

CS 744
High Performance Computer Architectures
High performance computer architectures achieve an increase in performance with increasing system resources. System resources are scaled by the number of processors used, the increase in memory capacity, the access latency tolerated, the I/O band width required, the performance level desired, and other considerations. Scalable architectures delivering a sustained performance are desired in both sequential and parallel computers. Parallel architecture has a higher potential; to deliver scalable performance. The scalability varies with different architecture-algorithm combinations. Both hardware and software issues need to be studied in building scalable computer systems. The issues are examined in the light of both research and commercial parallel systems.
Prerequisite: CS 644.
3 Lect Hrs, 3 Credits

CS 752
Parallel Programming
This course introduces the issues involved in parallel programming systems, including ease of programming, match between programming language and problem domain, and efficiency of the generated code. It explores and compares several parallel programming paradigms, and investigates algorithms for scheduling parallel programs and for automatic parallelization of serial programs.
Prerequisite: CS 650.
3 Lect Hrs, 3 Credits

CS 899
PhD Dissertation Research
Research conducted under faculty supervision leading to the presentation of a doctoral dissertation. This course carries variable credit and can be taken more than once.
1 to 9 Credits

Counselor Training (MEd, CAGS)

Faculty

Walter H Abrams, EdD, *Boston University* •Couples and Marital Therapy •Internship (Part-time)

John Butterworth, PhD, *University of Connecticut* •Supported Employment (Part-time)

Lisa Cosgrove, PhD, *Duquesne University* •Abnormal Psychology (Part-time)

Robert A Gracia, PhD, *Boston College* •Behavioral Counseling •Group Dynamics •Guidance (Part-time)

MaryAnna D Ham, EdD, *University of Rochester* •Structure and Process of Family Systems •Methods of Family Treatment and Intervention •Substance Abuse and the Family •Intervention •Ethical Standards •Counseling Theory and Practice

Rick Houser, PhD, *University of Pittsburgh* •Rehabilitation •Counseling Theory and Practice •Theories of Personality

Margaret Keiley EdM, *Harvard University* •Structure and Process of Family Systems •Professional Practices and Special Populations in Family Therapy (Part-time)

William Kiernan PhD, *Boston College* •Rehabilitation (Part-time)

Varda Konstam, PhD, *Fordham University* •Counseling Theory and Practice

Esmaeil Mahdavi, EdD, *Indiana University* •Group Dynamics •Substance Abuse •Practicum •Internship (Part-time)

Paul O'Brien, PhD, *Northeastern University* •Theories of Personality •Internship (Part-time)

Maxine Weinreb EdD, *Boston University* •Counseling Theory and Practice •Child Abuse and Neglect (Part-time)

The MEd Program

The Counselor Training Program allows the student to concentrate in one of four counseling areas: marriage and family therapy, mental health counseling, rehabilitation counseling, or school guidance. Through course work and field work experiences, students are prepared for professional positions in many settings—clinics, residential treatment facilities, hospitals, schools, rehabilitation agencies, career planning centers, employee assistance programs, and other mental health services.

The program gives students a background in the basic principles and theories of psychology, and enables them to acquire specific skills in counseling and assessment. Practicum and internship training sites are available in a variety of mental health, educational, and rehabilitation facilities. The internship is a critical part of the program; it includes on-site professional supervision as well as seminar meetings at the University. Faculty members holding part-time status in this program are career professionals—strongly committed to sharing their knowledge and skills with those entering the field.

The course curricula for the concentrations in marriage and family therapy, mental health counseling, and rehabilitation counseling fulfill the academic requirements for licensure by the Board of Allied Mental Health and Human Services professions of the Commonwealth of Massachusetts.

The rehabilitation concentration is nationally accredited by the Council on Rehabilitation Education; thus its curriculum fulfills the academic requirements for certification as a rehabilitation counselor.

The school guidance concentration meets the current certification standards of the Commonwealth of Massachusetts.

The marriage and family therapy concentration is currently being evaluated for national certification by the Commission on Accreditation for Marriage and Family Therapy Education.

In order to accommodate many students in the program who hold full-time positions, courses are offered in the late afternoon and evening and meet once a week.

Degree Requirements

Candidates in each of the four areas of concentration must complete a sequence of core courses, a two-semester internship, and an 18-hour concentration in their area. They must also pass a written comprehensive examination.

All candidates for the MEd degree must complete the following core courses: Coun 601, 607, 614, 615, 698 (two semesters).

Each concentration requires additional courses as follows:

Marriage and Family Therapy
Coun 608, 620, 622, 625, 627, 628, 653, 672, and two electives;

Mental Health Counseling
Coun 606, 608, 616, 622, 653, 695, and two electives from content areas designated by the Board of Allied Mental Health and Human Services Professions

Rehabilitation Counseling
Coun 602, 603, 605, 610, 612, 613, 616, and 695

School Guidance
Coun 605 608, 613, 616, 622, 630, and two of the following: Coun 606, 620, 653

Note: Students who are concentrating in rehabilitation counseling and interested in certification as alcoholism counselors must take two courses from the following list: Coun 670, 671, 672, 673, 674, 675.

Admission Requirements for the MEd

Please see the general statement of admission requirements for all graduate programs on page 9 of this publication.

The Counselor Training Program will recommend admission for applicants who present evidence of their ability to complete a graduate course of studies with distinction. Such evidence will normally include

1. A minimum of five courses in psychology or the equivalent.
2. A distinguished undergraduate transcript with at least a 3.0 overall average.
3. Graduate Record Examination aptitude scores or a score on the Miller Analogies Test (MAT). Please note: a test score is not required if the applicant holds an advanced degree from a US university.
4. An interview with a member of the program's faculty.

Note: Applicants to the concentration in marriage and family therapy must have one year of experience in the mental health field.

The Certificate of Advanced Graduate Study (CAGS)

The CAGS in Counselor Training Program serves the needs of persons who hold the master's degree in counseling or its equivalent and who seek additional professional and personal development in a structured sequence of graduate level courses.

Each candidate develops an individualized program totaling 36 credits, which must be approved by the senior program advisor, and which includes a supervised internship experience of at least one semester in a school, clinic, or agency.

Counselor Training

Admission Requirements for the CAGS

Please see the general statement of admission requirements for all graduate programs on page 9.

Candidates for the CAGS in Counselor Training must:

1 hold a master's degree in counseling or its equivalent with a minimum average of 3.25 (B+), and

2 have an interview with a member of the faculty.

Courses

Coun 601
Research and Evaluation in Psychology
This course examines several research models and strategies with respect to their various rationales and methodologies. Relevant statistical topics are introduced conceptually, especially as they are applied in research about specific academic settings.
3 Lect Hrs, 3 Credits
Mr Houser

Coun 602
Medical and Psychological Aspects of Disabilities
The course is designed to offer students with little or no exposure to advanced life sciences the opportunity to examine the physiological and anatomical basis for many chronic diseases they will encounter in a rehabilitation counseling setting. Students examine the etiology, progress, and potential resolution of a wide range of disorders as well as the potential implications consequent on their disabilities.
3 Lect Hrs, 3 Credits
Mr Houser

Coun 603
Foundations of Rehabilitation
This course seeks to provide students with basic information about the process of rehabilitation, and its history and philosophy. Discussions also focus on the organizational structure of the rehabilitation system, and on legal and ethical issues in the practice of rehabilitation counseling.
3 Lect Hrs, 3 Credits
Mr Houser

Coun 605
Principles of Vocational, Educational, and Psychological Assessment
A survey of standardized tests used in assessing aptitudes, interests, and personality traits. The course covers technical and methodological principles and social, ethical, and legal implications of psychological testing.
3 Lect Hrs, 3 Credits

Coun 606
Ethical Standards and Professional Issues in Counseling
The purpose of this course is to create an awareness among counselors-in-training of their contribution in the therapeutic process and helping relationship. Topics include foundations for an ethical perspective; models for ethical decision making; ethical codes of professional organizations; client rights and counselor responsibilities; ethical concerns in multicultural counseling and with special client populations; ethical issues in specific modalities (i.e., group, marriage and family counseling).
Prerequisite: Graduate Standing.
3 Lect Hrs, 3 Credits
Ms Ham

Coun 607
Theories of Personality
This course is designed to lead to an understanding of the issues underlying the development of personality theory and personality constructs. Personality theory and current research are examined through three central perspectives: psychoanalytic theory, social learning theory, and cognitive development theory. Measurement, assessment, and validation issues are also addressed.
3 Lect Hrs, 3 Credits
Mr Houser, Mr O'Brien

Coun 608
Abnormal Psychology
A comprehensive view of abnormal behavior in modern times. The course makes use of the revised DSM III classification systems of mental disorders and examines patterns of abnormal behavior including neuroses, psychosomatic conditions, psychosis including affective disorders, schizophrenias, abnormal behaviors of childhood and adolescence, sexual dysfunctions, and drug abuse. Brief coverage is also given to therapeutic treatments and their effectiveness.
3 Lect Hrs, 3 Credits
Ms Cosgrove

Coun 610
Case Management and the Use of Community Resources
This course acquaints students with case management in rehabilitation counseling, and with the range of community resources available to the counselor whose goal is the effective and comprehensive rehabilitation of individuals with disabilities. Topics include case finding and case planning, service coordination, and client advocacy activities.
3 Lect Hrs, 3 Credits

Coun 612
Vocational Rehabilitation and Placement
This course seeks to provide students with information about the total vocational rehabilitation process, including follow-up services. Topics include the referral process; eligibility criteria; comprehensive (medical, psychological, vocational) assessment; vocational training; and placement.
3 Lect Hrs, 3 Credits

Coun 613
Vocational Development and Career Information
The vocational development component of the course concentrates on the theories of Roe, Holland, Ginzberg, Super, and Tiedeman. The career information component, a major emphasis, directs the student to locate and use sources of educational-vocational information. These sources will include but not be limited to the *Dictionary of Occupational Titles, the Occupational Outlook Handbook*, the *Guide to Occupational Exploration*, information on local labor markets and on military careers, occupation-education information, college and vocational school guides and catalogues.
3 Lect Hrs, 3 Credits

Coun 614
Counseling Theory and Practice I
The purpose of this course is to provide grounding in the commonalities of counseling techniques and practice in the use of various techniques. The course covers the essentials of interviewing, note taking, and report writing, and the role of diagnosis. Tapes and role playing are required.
3 Lect Hrs, 3 Credits
Ms Ham, Mr Houser, Ms Konstam

Coun 615
Counseling Theory and Practice II
This course is an extension of Counseling Theory and Practice I. Major theoretical approaches (dynamic, humanistic, behavioral) are considered. The course also involves the exploration of some non-traditional approaches, and the use of tape recordings, films, written records of interviews, and role playing.
Prerequisite: Coun 614.
3 Lect Hrs, 3 Credits
Ms Weinreb

Coun 616
Group Counseling and Group Dynamics
An introduction to group dynamics which uses the group process of the class to provide experience of group membership and data for interpretation. Participation as a group member is required. Readings and lectures build a cognitive base for evaluating the experiential learning.
Prerequisite: Coun 615.
3 Lect Hrs, 3 Credits
Mr Gracia, Mr Mahdavi

Counselor Training

Coun 620
Clinical Application of Human Development
This course provides students with a comprehensive view of life span development from childhood through adulthood from several perspectives: 1) the interaction of age with such factors as gender, cultural background, disabilities, and other significant issues which may be encountered at particular stages of life; 2) how individuals at specific stages of cognitive development process information and experience; 3) a structural approach to ego development; and 4) a psychoanalytic concept of self psychology.
3 Lect Hrs, 3 Credits

Coun 622
Structure and Process of Family Systems
This course examines theories of family dysfunction and treatment from a systems perspective including the dynamics of family interactions, development tasks of the family life cycle, communication and structural theory, systems inventories, and family interviewing skills training.
Prerequisite: Coun 615.
3 Lect Hrs, 3 Credits
Ms Ham, Ms Keiley

Coun 623
Vocational Counseling
An intensive study of the vocational counseling process. Topics include vocational interests, aptitudes, values, and counseling techniques. Students are required to submit audio and video tapes of vocational counseling sessions.
Prerequisites: Coun 613 and 614.
3 Lect Hrs, 3 Credits

Coun 625
Methods of Family Treatment and Intervention
This course focuses on the use of family therapy concepts from a systems perspective. Three basic family system models are reviewed and used as the basis for implementing family therapy techniques. Classes include lectures, videotapes, and role play.
Prerequisites: Coun 614 and 615.
3 Lect Hrs, 3 Credits
Ms Ham

Coun 627
Couples and Marital Therapy
This course focuses on the theory and practice of marital and couples counseling. It explores several major theoretical perspectives on the understanding and treatment of couples; uses these as a basis for assessment, formulation and treatment planning; and employs experiential exercises and case material to apply them. It also explores several special topics relevant to the treatment of couples.
Prerequisites: Coun 614, 615, 622.
3 Lect Hrs, 3 Credits

Coun 628
Professional Practices and Special Populations in Family Therapy
This course focuses on both clinical and theoretical aspects of family therapy. Issues for discussion include the value and ethical belief systems of both family and counselor; family membership; various models in the field and their correctness of fit; and strategies for treatment of symptom-focused families. This is a discussion course, rather than a clinical one.
Prerequisites: Coun 614, 615, and 622.
3 Lect Hrs, 3 Credits
Ms Keiley

Coun 630
Principles of Guidance
The basic philosophy, scope, and techniques of guidance in schools are reviewed and analyzed. Discussion covers practical issues relevant to school counseling: the school as an institution; relations between counselor, administrators, teachers, and parents; developmental education; sex education; counseling standards and legislation; roles of the school counselor; professional development.
3 Lect Hrs, 3 Credits
Mr Gracia

Coun 632
Rehabilitation of the Substance Abuser
This course offers an intensive study of substance addiction, intervention, and treatment, with an emphasis on case studies.
2-3 Lect Hrs, 2-3 Credits

Coun 635
Behavioral Counseling
A rigorous examination of social learning theory as a basis for practice of therapeutic behavioral counseling. Through lectures, readings, demonstrations, and discussions, students become familiar with fundamental techniques of behavioral counseling, includingoperant, classical, modeling, and cognitive methods.
Prerequisites: Coun 614 and 615.
3 Lect Hrs, 3 Credits
Mr Gracia

Coun 640
Program Design and Management in Supported Employment
This course seeks to help students develop management skills that will be useful in the design, operation, and evaluation of employment programs for persons with moderate and severe disabilities, at both the secondary school and adult service levels. The primary emphasis is on supported employment, but topics also include other day program models, and related support services. Participants review essential program components, and gather information from a number of sources in order to analyze successful program design.
3 Lect Hrs, 3 Credits
Mr Butterworth

Coun 653
Perspectives in Cross-Cultural Counseling
This course addresses the role of culture in counseling and psychology by looking both at history and at current issues. Discussions use an interdisciplinary framework to approach the question of counseling in a multicultural society. The course seeks to contribute to both the personal and the professional development of its participants.
Prerequisites: Coun 614, 615.
3 Lect Hrs, 3 Credits

Coun 662
Rehabilitation of the Penal Offender
This course provides students with a psychological perspective on crime and criminal justice in the United States. The course focuses on current explanations of offender behaviors and treatment efforts to change them. It attends to the various ethical and "effectiveness" issues raised by critics of rehabilitation. It explores the diagnostic and therapeutic roles and strategies of psychologists as they have developed in institutional and community settings.
Prerequisites: Coun 614, 615.
3 Lect Hrs, 3 Credits

Coun 663
Psychology of Death and Dying
This course explores many issues related to death: loss, separation, anxiety, aging, terminal illness, euthanasia, and bereavement, and discusses counseling techniques.
3 Lect Hrs, 3 Credits

Counselor Training

Coun 664
Child Abuse and Neglect
This course addresses the growing problem of child abuse and neglect in American society, exploring the psychodynamic and sociocultural factors that contribute to child abuse. Emphasis is given to prevention, intervention, treatment, and the legal aspects of abuse and neglect.
3 Lect Hrs, 3 Credits
Ms Weinreb

Coun 670
Substance Abuse in Modern Society
This course surveys the broader problems caused by substance abuse in modern society, both presenting and analyzing data. Part of the course is devoted to a study of the physiological consequences of substance abuse. Consideration is also given to the family of the substance abuser, to various treatment modalities, and to the relationship between the criminal justice system and substance abuse rehabilitation.
3 Lect Hrs, 3 Credits
Mr Mahdavi

Coun 671
Employee Assistance Programming
This course focuses on the historical development of, and current critical issues in, employee assistance programming. It also considers the major elements and procedures in employee assistance programs with special emphasis on industrial organizations.
Prerequisite: Coun 670.
3 Lect Hrs, 3 Credits

Coun 672
Substance Abuse and the Family
This course focuses on families with members who are substance abusers, and the ways in which these families function. The course explores the methods and resources available for helping such families.
Prerequisite: Coun 614.
3 Lect Hrs, 3 Credits
Ms Ham

Coun 673
Substance Abuse Counseling and Therapy
Students in this course become familiar with the techniques and tactics associated with various methods of treating people addicted to alcohol and drugs. It offers instruction and supervised practice in treatment approaches.
Prerequisites: Coun 614 and 670.
3 Lect Hrs, 3 Credits

Coun 674
Psychopharmacology
This course considers the nature of alcohol and narcotics, and the ways they affect addicts in mind and body before, during, and after treatment.
Prerequisite: Coun 614, 670.
3 Lect Hrs, 3 Credits
Mr Cosgrove

Coun 675
Organization and Administration of Treatment Facilities For Substance Abusers
This course focuses on the roles of private, state, and federal agencies in treating substance abusers. Topics include the assessment of community needs, the use and abuse of negotiation skills, and the leadership role of the treatment administrator. Some attention is also given to record keeping; fiscal management; the legal, ethical and moral standards applicable to addiction treatment; board-director-staff relationships; volunteerism; and gate-keeping.
Prerequisite: Coun 614, 670.
3 Lect Hrs, 3 Credits

Coun 695
Practicum
The purpose of the practicum is to expose the student to the field of rehabilitation counseling. Students participate in several rehabilitation programs, both in an adaptive computing lab and in a community agency providing rehabilitation services. They learn about recent trends in consumer rights in the rehabilitation process and examine current issues in the field of rehabilitation.
Prerequisites: Coun 603, 607, 614, and 615.
3 Lect Hrs, 3 Credits
Mr Mahdavi and Staff

Coun 696
Independent Study in Counselor Training
This course allows for the comprehensive study of a particular topic or a field work experience under the direction of a faculty member. A detailed proposal must be submitted to the faculty member prior to registration.
Hours by arrangement, 3-6 Credits

Coun 697
Special Topics in Counselor Training
An advanced course offering intensive study of a selected topic in counseling psychology. Course content varies according to the topic and will be announced prior to registration.
Hours by arrangement, 3-6 Credits

Coun 698
Internship in Counselor Training
Students are placed as apprentice counselors in schools or agencies under the direct supervision of qualified professionals. Students meet weekly on campus in a three-hour seminar.
Prerequisites: Coun 605, 607, 608, 614, and 615.
3 Sem Hrs, 6 Credits
Mr Abrams, Mr Houser, Mr Mahdavi, Mr O'Brien, and Staff

Critical and Creative Thinking (MA, Graduate Certificate)

Faculty

Lawrence Blum (Philosophy Department), PhD, *Harvard University* •Ethics and Moral Philosophy (on leave 1995-96)

Dennis L Byrnes (Psychology Department), PhD, *Brandeis University* •Human Memory and Learning

Judith Collison (Critical and Creative Thinking Program), EdD, *University of Massachusetts Amherst* •Philosophy and Mathematics Education

Patricia S Davidson (Mathematics and Computer Science Department), EdD, *Harvard University* •Mathematics Education •Neuropsychology of Mathematics Learning •Creative Teaching Strategies and Assessment Techniques

Lynn Dhority PhD, (Modern Languages Department), *Harvard University* •Integrative Learning and Teaching Strategies •Group Dialogue Facilitation •Systems Thinking Strategies (on leave 1995-96)

Delores Gallo (Critical and Creative Thinking Program), EdD, *Harvard University* •Elementary Education •Creativity and Learning

Claire Golomb (Psychology Department), PhD, *Brandeis University* •Symbol Formation in Child Art •Dramatic Play and Cognitive Development

Arthur Millman (Philosophy Department), PhD, *University of Chicago* •Philosophy of Science and Technology •Scientific Method (on leave spring 1996)

John R Murray (Critical and Creative Thinking Program), EdD, *University of Massachusetts Amherst* •Biology •Science Education •Psychometrics

Steven Schwartz (Psychology Department), PhD, *University of Illinois at Urbana-Champaign* •Learning •Problem Solving •Statistics and Research Methods (on leave fall 1995)

The Program

The Graduate Program in Critical and Creative Thinking (CCT) is a unique interdisciplinary program which continues to grow and contribute to the wider national and international discourse on critical and creative thinking. Founded by faculty from the disciplines of philosophy, psychology and education, it offers a master of arts degree, a graduate certificate and other non-degree options. Graduate students from many states and several countries join those from Massachusetts in pursuing these options. Some are teachers, teacher educators, curriculum specialists, and school administrators; while others are museum educators, artists, musicians, and other professionals. Policy makers in government and corporate settings also find the program useful.

The CCT Program provides students with an understanding of the processes of critical thinking and creativity, and with ways of helping others develop these basic thinking skills in a variety of formal and informal educational settings. Courses in the program make use of psychological studies of the scope, limits, and techniques of critical and creative thought, information processing, and conceptual learning in children and young adults; philosophical studies of techniques in reasoning, argument, logical thinking, valuing, and judging; and work with cognitive structures and metacognitive techniques for stimulating creativity and critical thought.

One primary goal of the CCT Program is to help practicing educators and other professionals translate what they learn in CCT into strategies, materials and interventions for use in their own settings.

Specialty content areas, within which students can become particularly expert at applying critical and creative thinking skills in a specific field, are available. The program offers three such areas and provides for several other individualized choices, through cooperation with other UMass Boston graduate programs, in such fields as business, developmental psychology, instructional design and media, language development, special education, and dispute resolution.

The specialty areas offered by the CCT Program itself are

- Moral Issues and Moral Education
- Criticism and Creativity in Literature and the Arts
- Critical and Creative Thinking in Mathematics, Science, and Technology

Degree Requirements

Thirty graduate credits are required for completion of the MA degree. While it is possible for a full-time student to complete the master's program in one academic year and two summer sessions, most students combine the program with their ongoing careers and therefore take at least two or three years. In general, courses are offered after 4 pm as well as during the summer, to accommodate the schedules of teachers and other professionals. The program has five components:

1. A sequence of two core courses, CCT 601 and 602 (Critical Thinking and Creative Thinking) to be taken at the beginning of the program (6 credits).
2. Two advanced core courses in the philosophy and the psychology of thinking, Phil 601 and Psych 650, to be taken as soon as possible after CCT 601 and 602 (6 credits).
3. Three electives within the specialty area, chosen from among offerings in CCT, or from among relevant courses in other academic programs and departments (9 credits).

   Note: By petition, a student may transfer up to 6 graduate credits from another institution as elective credits. Also with prior permission of the CCT Program director, up to two upper level undergraduate courses may be taken where appropriate as electives within a specialty area.
4. A practicum course and an evaluation seminar in which critical and creative thinking interventions are developed, implemented, evaluated, and modified (6 credits).
5. A supervised thesis program (3 credits).

   The thesis provides an opportunity for the student to integrate and synthesize the knowledge and skills gained in the program into a significant work. Students may choose one of three options: the traditional thesis, the curriculum development thesis, and the arts and technology thesis.

   A. The traditional thesis is intended for the MA candidate who plans to proceed to a doctoral program or who chooses to work within the standard thesis format. The three traditional thesis choices are

      1. An empirical study of a critical and creative thinking intervention.
      2. A thorough analysis and critique of an existing curriculum program or critical and creative thinking program.
      3. A theoretical thesis on some major issue.

Critical and Creative Thinking

B. The curriculum development thesis is intended for the MA candidate primarily concerned with the application of knowledge and skills to specific contexts and/or content areas. The curriculum focuses on the development of thinking skills for the selected population.

C. The arts and technology option is intended for the MA candidate who seeks to make an original contribution to a specific field and to offer insightful reflection on the nature of the creative process. The original creative work may be undertaken in literature, music, the visual arts, or technological design. It is to be accompanied by a reflective essay on the evolution of the product which relates it to an appropriate theoretical framework.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9.

The Critical and Creative Thinking Program will recommend for admission those applicants who present evidence of their ability to do graduate work with distinction. Such evidence will normally include

1. A distinguished undergraduate transcript with at least an average of 3.0.
2. At least three positive and informed letters of recommendation submitted by persons who are knowledgeable about educational or corporate issues, who have worked closely with the applicant, and who have direct knowledge of the applicant's abilities.

In addition, applicants may submit results of the Graduate Record Examination (GRE) or the Miller Analogy Test (MAT) and evidence of teaching or corporate competency, such as curriculum projects and lessons or business plans.

With the permission of the CCT director, up to two graduate courses taken at University of Massachusetts Boston as a non-matriculated student may be counted toward the MA Degree or Certificate Program.

The Certificate

Among the non-degree options offered by the Critical and Creative Thinking Program is the graduate certificate. This program is designed for practitioners with an interest in this field who wish to pursue a coherent and substantial course of study, but for whom the master's program is not desirable or practical. Admission requirements are the same as for the master of arts program, and students are required to maintain a 3.0 GPA throughout the program, with no grade lower than 3.0. Students seeking the certificate take a total of five courses (15 credits): a sequence of two core courses, CCT 601 and 602 (Critical Thinking and Creative Thinking); either Phil 601 (Foundations of Philosophical Thought) or Psych 650 (Advanced Cognitive Psychology); CCT 698 (the practicum course); and an elective course to be chosen in consultation with the student's faculty advisor. Each certificate student also gives an exit performance that demonstrates competence in implementing critical and creative thinking. This is reviewed and evaluated by a faculty committee.

Courses

CCT 601
Critical Thinking
This course explores issues about the nature and techniques of critical thought, viewed as a way of thinking aimed at minimizing error and irrationality in our beliefs and attitudes. Views about observation and interpretation, reasoning and inference, and valuing and judging are all considered in this general context, with special reference to questions about how we can help others to develop the skills needed to do these things well, in a variety of educational settings.
3 Lect Hrs, 3 Credits
Ms Collison, Mr Millman, Mr Murray

CCT 602
Creative Thinking
This course seeks to increase the participants' understanding of creativity, to improve their creative problem-solving skills, and to enhance their ability to promote these skills in others, in a variety of educational settings. Students participate in activities designed to help develop their own creativity, and discuss the creative process from various theoretical perspectives. Readings are on such topics as creative individuals, environments that tend to enhance creative functioning, and related educational issues. Discussions with artists, scientists, and others particularly involved in the creative process focus on their techniques, and on ways in which creativity can be nurtured.
3 Lect Hrs, 3 Credits
Ms Gallo, Mr Schwartz

CCT 611
Seminar in Critical Thinking
This course involves research on and discussion of important issues of current concern about critical thinking. Topics include critical thinking; logic and knowledge; critical thinking about facts and about values: is there a difference? artificial intelligence models of critical thinking; teaching to be critical; and evaluating critical thinking skills.
Prerequisite: CCT 601 or permission of instructor.
3 Lect Hrs, 3 Credits

CCT 612
Seminar in Creativity
This course involves research on and discussion of important issues of current concern in the field of creativity. The seminar analyzes writings on the creative person, the creative process, and the development of creative performance in both art and science. It draws on materials from a variety of sources including biography, intellectual histories, psychological studies and educational research. Topics include perspectives on the creative process; from logical extension to intuitive leap; distinguishing scientific and artistic creativity; the person; the role of insight; demythologizing creativity; social context and creative productivity; evaluating creativity; educating for creativity.
Prerequisite: CCT 602 or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Gallo

CCT 615
Holistic and Integrative Teaching
This course explores approaches which tap both teachers' and students' potential for learning, thinking, and creativity. Its primary focus is on integrative, holistic strategies to engage students creatively in literature, writing and the arts. Participants are actively involved in preparing practical applications and demonstrations of concepts emerging from the class.
Prerequisite: Graduate standing
3 Lect Hrs, 3 Credits
Mr Dhority

Critical and Creative Thinking

CCT 616
The Dialogue Process
Genuine dialogue, as meant here, is a frequently sought, rarely found experience of "elemental togetherness" (Martin Buber). Dialogue provides the creative space in which entirely new ways of thinking and acting may emerge. Holding respect for oneself, for one another, and for a commonly created pool of meaning is at the heart of this dialogue. Course participants explore and experience a dialogue process that derives in part from Buber, physicist David Bohm, and William Isaacs of the MIT Dialogue Project. The course provides a context for tapping into more coherent levels of meaning and intelligence. Through becoming aware of the underlying beliefs and assumptions that limit our thinking and responding to the world, we can, in a spirit of compassionate, nonjudgmental inquiry and self-expression, open to the profound, generative and creative resources of what Bohm calls the "unified field" of being.
3 Lect Hrs, 3 Credits
Mr Dhority

CCT 620
Moral Education
This course involves a comprehensive analysis of the basic issues in moral education from an interdisciplinary perspective. Philosophical studies of the nature of morality and the moral life are integrated with psychological studies of moral development and human motivation and brought to bear on issues in teaching morality, especially in elementary and secondary schools, in a democratic society. Topics include rationality, emotion, and motivation in moral action; the moral life and the aims of moral education; the moral development of children; moral education versus indoctrination; socialization; the "hidden curriculum"; and moral education. Throughout this course theoretical insights are applied to an examination of materials, programs, and practices in moral education, both in schools and in the wider community.
Prerequisites: CCT 601 and CCT 602, or permission of instructor.
3 Lect Hrs, 3 Credits

CCT 625
Seminar in Moral Education
This course involves research on and discussion of issues of current concern about morality, human development, and education. This seminar treats such topics as skills in moral decision-making and in moral action; knowledge and desire in morality; moral responsibility; does the moral development of boys and girls differ? moral emotions; indoctrination; evaluating moral development; and moral education through literature.
Prerequisite: CCT 620 or permission of instructor.
3 Lect Hrs, 3 Credits

CCT 627
Issues and Controversies in Antiracist and Multicultural Education
This course explores two related forms of education—antiracist education and multicultural education—approaching them as issues in moral and value education and exploring controversies in the theories and practices of antiracist and multicultural education. The course deals with both practical and theoretical issues, but concentrates more on theory. Specific topics include racism, race, and school achievement; ethnic identity and self-esteem; Afrocentrism; religious pluralism; multiculturalism as a unifying or divisive force.
Prerequisites: CCT 601 and CCT 602, or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Blum

CCT 630
Criticism and Creativity in Literature and the Arts
Expression and evaluation, freedom and discipline, creative production and its critique—how do these dualities relate to visual and verbal imagination as they are demonstrated in literature and the arts? Specific strategies for eliciting imaginative work in these areas are demonstrated, as are specific strategies for evaluating imaginative works. Finally, this course focuses on ways of helping others (including children) to develop these skills and effectively utilize these strategies.
Prerequisites: CCT 601 and CCT 602, or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Gallo

CCT 635
Seminar in Criticism and Creativity in Art
This course involves research on and discussion of some of the important issues of current concern in art criticism and the analysis of creativity in the arts. The course draws on research from psychology, philosophy, and art criticism. As part of the program's interdisciplinary emphasis, the course offers opportunities for intellectual synthesizing. It focuses on issues of definition and evaluation in the arts and the implications for instruction. The seminar treats such topics as perception and judgment in the arts; modes of representation and creative expression in the arts; intention and meaning in art criticism; truth in the arts; art and morality; aesthetic attitude, experience, and aesthetic standards; criticism in aesthetic education; evaluating creativity in the arts.
Prerequisite: CCT 630 or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Gallo

CCT 640
Critical and Creative Thinking in Science and Technology
This course explores issues about experiment, discovery, and application in science and technology, and the professional, social and moral issues to which these give rise. These issues are developed through discussion of such topics as inquiry and problem-solving in science; hypothesis formation; observation and experiment; theories, paradigms, and revolutions in the history of science; relationships between common sense and science; similarities and differences between critical and creative thinking in science and in other fields; problems in the social control of science and technology. Such examples as the space program, the discovery of the structure of DNA, genetics and genetic technology, risk-benefit analysis of nuclear technology, the role of women in science, and the controversy over ESP are explained in depth and detail; and related to more general themes about critical and creative thinking in science and technology. Implications of this study for science teaching in both elementary and secondary schools are discussed.
Prerequisites: CCT 601 and CCT 602, or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Millman, Mr Murray

CCT 645
Seminar in Scientific Thinking
This course involves research on and discussion of issues of current concern about scientific thinking. This seminar treats topics such as observation and theory in scientific thinking; science and pseudoscience; conceptual change in children and adults; the impact of views of cognitive development on the teaching of science; scientific revolutions; and creative problem-solving in science.
Prerequisite: CCT 640 or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Millman, Mr Murray, Ms Smith

Critical and Creative Thinking

CCT 650
Mathematics Thinking Skills
This course explores several types of mathematical thinking in the context of number theory, algebra, geometry, and introductory calculus, and relates them to critical and creative thinking skills. Developmental and experiential factors in learning and teaching mathematics are considered, as well as techniques for determining a learner's mathematical abilities and learning styles. Readings, discussion, research, and problem-solving are used to provide a historical context, and to suggest connections with other disciplines. Individual and small-group projects are adapted to student interests. No formal mathematical background beyond high school algebra and geometry is required.
Prerequisite: CCT 601 and 602, or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Collison, Ms Davidson

CCT 652
Children and Science
This course explores the ways children think about their natural and social world and how this affects their learning of science. It is particularly concerned with identifying and describing the organized conceptual frameworks children have prior to instruction (which typically are different from the scientists' conceptualizations) and with understanding the general processes by which conceptual frameworks can be changed. One important question concerns the ways in which children are fundamentally different learners and thinkers than adults and the ways in which they are fundamentally similar.
3 Lect Hrs, 3 Credits
Mr Murray, Ms Smith

CCT 655
Metacognition
This course considers various aspects of metacognition and how they influence behavior in children and adults. Topics include the individual's knowledge of his or her own cognition, self-awareness, the monitoring of conscious thought processes, inferences about unconscious thought processes, metacognition as a decision process, metacognitive strategies, the development of metacognition, and metacognition as a source of individual differences in children.
Prerequisite: Psych 350 or 650.
3 Lect Hrs, 3 Credits
Mr Schwartz

CCT 670
Thinking, Learning, and Computers
This course involves comparative studies that pair the problem-solving and decision-making logic of computers with similar processes in human thinking. Participants use artificial intelligence software to explore the idea of "machine intelligence" and its relation to the ways their own minds organize and process information. The course includes readings in current research literature about the ways computers can be used to model and simulate human thinking processes.
Prerequisites: CCT 601 and 602, and Psych 650, or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Murray

CCT 685
Seminar on Issues in Educational Evaluation
This course provides a critical study of the nature, techniques, scope and limits of the major forms of educational evaluation, set in the context of broader issues about evaluation. Special emphasis is put on the nature of quantitative and qualitative methods of educational evaluation. Part of the class time is spent on issues that arise in connection with the evaluation of specific curriculum projects and teaching techniques of teachers and other practitioners involved in the seminar.
Prerequisites: CCT 601 and CCT 602, or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Murray

CCT 696
Independent Study
This course involves the comprehensive study of a particular topic or area of literature determined by the student's need; the study is pursued under the guidance, and subject to the examination, of the instructor. An application or outline of study should be submitted to the instructor by the end of the semester previous to that in which this course is to be taken.
1-6 Credits

CCT 697
Special Topics in Critical and Creative Thinking
This advanced course offers intensive study of selected topics in the field of critical and creative thinking. Course content and credit vary according to the topic and will be announced during the advance registration period.
3 Lect Hrs, 3-6 Credits

CCT 698
Practicum
This course involves 1) the integration of critical and creative thinking skills and 2) supervised help for each student to plan an intervention designed to enhance critical and/or creative thinking skills in an educational or corporate setting.
Prerequisites: CCT 601 and CCT 602, or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Collison, Mr Murray

CCT 699
Thesis Research
Students should sign up for this course after they have completed eight or nine courses and should meet with the director of the program to arrange for an appropriate thesis committee (the student's advisor and two committee members). The three person committee meets twice with the student, first to approve the thesis proposal and second, to approve the final draft of the thesis. Each student meets regularly with the thesis adviser until the thesis is completed, but needs to sign up only once for this course. To provide additional support, group seminars may be offered so that students, past graduates, and faculty can come together to discuss the thesis requirements and share ideas about the process of thesis writing.
Hrs to be arranged, 3 Credits

Departmental Courses (Required)

Phil 601
Foundations of Philosophical Thought
By discussing four or five traditional substantive problems in philosophy—morality, the nature of knowledge, freedom of the will, the nature of mind, and social organization—the course attempts to derive a common approach that philosophers bring to these problems when developing their own solutions and criticizing the solutions of other philosophers. It also considers some of the ways that substantive issues and debates in philosophy relate to contemporary non-philosophical issues in our society, and can be introduced into a broad range of educational environments outside standard philosophy courses.
Prerequisites: CCT 601 and CCT 602, or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Farrell Smith, Mr Millman

Psych 650
Cognitive Psychology
This course gives a survey of the field of cognitive psychology from an information-processing viewpoint. This course considers how people encode, organize, transform, and output information. Emphasis is given to such topics as concept formation, problem-solving, and creative thinking.
Prerequisites: CCT 601 and CCT 602, or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Byrnes, Mr Schwartz, Ms Smith

Dispute Resolution (MA, Graduate Certificate)

Faculty

Jack H Archer (Environmental Sciences Program), JD, *University of California*, LLM, *University of Washington* •Environmental Mediation

Stuart Goldstein, MEd, *Lesley College* •Negotiation (Part-time)

Bradley Honoroff, JD, *Harvard University* •Mediation •Dispute Resolution Theory

Joshua Jacks, BA, *University of Massachusetts Boston* •Mediation (Part-time)

Gillian Krajewski, MA, *Carleton University* •Mediation (Part-time)

Katina Leodas, JD, *Harvard University* •Mediation •Public Policy Disputes (Part-time)

Dina Beach Lynch, JD, *Suffolk University* •Mediation (Part-time)

Janet Martinez, MPA, *Harvard University*, JD, *Golden Gate University* •Negotiation (Part-time)

David E Matz, JD, *Harvard University* •Mediation •Negotiation

Padraig O'Malley, (John W McCormack Institute of Public Affairs) MA, *Tufts University* •Conflict in Ireland •Conflict in South Africa

Jonathan Raab, PhD, *Massachusetts Institute of Technology* •Environmental Mediation (Part-time)

John D Spence (Department of Political Science), JD, *Harvard University*, PhD, *Massachusetts Institute of Technology* •Conflict in Central America

Eben Weitzman, PhD, *Columbia University* •Cross-cultural Mediation •Group Conflict

The Programs

UMass Boston offers two graduate programs in this important and growing field: the Master of Arts Program in Dispute Resolution and the Graduate Certificate Program in Dispute Resolution. Both are responsive to the increasing public awareness of conflict as an inescapable phenomenon affecting individuals, families, and nations. Conflict also has an impact upon how well companies and other organizations function. A growing appreciation of conflict management and, in particular, of the relationship between effective conflict management and successful organizations has led to increased demand for rigorous and sophisticated training in this field.

The MA program offers a comprehensive 36-credit curriculum encompassing dispute resolution skills, practice, analysis, theory, and research. Once dispute resolution skills have been developed and honed, students can develop context-specific dispute resolution expertise. Specialization areas offered in the MA Program include, but are not limited to, environmental sciences, education, labor relations, and human services.

The graduate certificate program offers an 18-credit curriculum focusing on dispute resolution skills for professionals who manage conflict in their work. Among the oldest programs of its kind, this program has for a decade been educating capable graduates whose new skills have helped them to excel in their chosen fields.

Dispute resolution training is of benefit to students from such varied fields as public and private sector management, education, law, environmental sciences, health care, labor relations, law enforcement, the ministry, architecture, and human services. The programs' curricula emphasize the development, role, and management of conflict in such settings as government agencies, schools, hospitals, corporations, universities, and communities. Both the MA and the graduate certificate programs also offer challenging internship opportunities. Under the close supervision of program faculty, students handle real mediation cases throughout their internship semester. Faculty members holding part-time status in this program are career professionals—strongly committed to sharing their knowledge and skills with those entering the field.

The two programs operate independently of each other, with separate courses, policies, requirements, and deadline dates for admissions. Graduates of the certificate program may apply for entry into the MA program, but their admission is not guaranteed. Credits earned in the certificate program can be transferred into the MA program, but certificate program graduates must complete additional credits to earn the MA (See "Degree Requirements" below). With the permission of the program director, students from one program may occasionally take a class in the other. In both programs, most classes meet during evening hours and participants can enroll in either program as full-time or part-time students.

Students are admitted into the MA program once a year, for the fall semester. Fall classes begin in September. Students are admitted into the certificate program once a year, for the spring semester. Spring classes begin in late January.

Faculty and staff welcome calls from prospective students who need assistance in determining which program would best suit their needs. The number is 617 287-7421.

Degree Requirements

The Master of Arts Program

Most students complete the following 36-credit curriculum:*

- DisRes 621 (Negotiation) 3 Lect Hrs, 3 Credits
- DisRes 622 (Ethics and Public Policy) 3 Lect Hrs, 3 Credits
- DisRes 623 (Introductory Theory) 3 Lect Hrs, 3 Credits
- DisRes 624 (Cross-Cultural Conflict) 3 Lect Hrs, 3 Credits
- DisRes 625 (Conflict, Organizations, and Systems) 3 Lect Hrs, 3 Credits
- DisRes 626 (Advanced Intervention) 3 Lect Hrs, 3 Credits
- Elective** (3 Lect Hrs, 3 Credits)
- DisRes 690 (Internship) 6 credits
- DisRes 692 (Conflict in Context) 3 Lect Hrs, 3 Credits
- DisRes 693 (Final Project) (6 credits)

*Graduates of the 18-credit graduate certificate program who apply and are admitted to the MA program must complete 21 credits in the MA program (five courses and the final project) to earn the master's degree.

**The three-credit elective course may be DisRes 691 (Special Topics) or a course offered through another UMass Boston graduate program. A list of such electives is available through the program office.

Dispute Resolution

The Graduate Certificate Program

Students in the graduate certificate program complete the following 18-credit curriculum:

DisRes 600 (Negotiation) 3 Lect Hrs, 3 Credits
DisRes 601 (Mediation) 3 Lect Hrs, 3 Credits
DisRes 602 (Theories of Conflict Resolution) 3 Lect Hrs, 3 Credits
DisRes 603 (Advanced Mediation and Negotiation) 3 Lect Hrs, 3 Credits
DisRes 690 (Internship) (6 credits)

Each student completing the program earns eighteen credits and receives a certificate. Credits earned in the certificate program can be applied to any of several UMass Boston graduate degree programs upon admission to those programs.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9, and the "Special Instructions for Applicants to Individual Programs" section at the back of this publication. Please note: Students in the Graduate Certificate Program should complete all program requirements before applying for admission to the MA Program. For further information, contact the program office.

For Both Programs

1. If applicable, please include a separate sheet listing and describing any previous training or education you have had in negotiation or mediation.
2. Send a completed copy of your application to the Graduate Program in Dispute Resolution, as well as sending the *original* to the Office of Graduate Admissions and Records.

For the Master of Arts Program

Admission requirements include

1. a bachelor's degree,
2. experience managing conflict,
3. appropriate writing and research skills, and
4. a satisfactory score on the Miller Analogies Test or the Graduate Record Examination. Please note: a test score is not required if the applicant holds an advanced degree from a US university.

Candidates may be asked to visit the campus for an interview.

For the Graduate Certificate Program

Admission requirements include

1. a bachelor's degree,
2. experience managing conflict, and
3. appropriate writing skills.

Courses

The master's program and the certificate program have separate course offerings, which are listed below. At the time of publication, some elective offerings were being designed, and some courses in the master's program were pending final University approval.
Current information is available from the program office.

Graduate Certificate Program Courses

DisRes 600
Negotiation (C)
This course focuses on building students' skills as negotiators. Students learn about alternative strategies available to negotiators and how to choose among those alternatives to achieve a desirable settlement. Negotiation simulations and critiques are a major component of this class.
3 Lect Hrs, 3 Credits

DisRes 601
Mediation
This course enables students to think as mediators. It provides a framework for defining the role of mediator and for mastering the techniques needed for the job. A variety of approaches to mediation are considered.
3 Lect Hrs, 3 Credits

DisRes 602
Theories of Conflict Resolution
This course engages students in a systematic examination of conflict resolution theories. Readings are drawn from a broad range of academic disciplines, including economics, law, social psychology, and anthropology, as well as dispute resolution. Students learn how to critically evaluate the respective bodies of theory and are invited to test theoretical principals against their experiences in managing conflict.
3 Lect Hrs, 3 Credits

DisRes 603
Advanced Negotiation and Mediation
This course builds on the introductory courses and examines the resolution of conflict in different contexts.
Prerequisite: DisRes 601 or permission of program director.
3 Lect Hrs, 3 Credits

DisRes 690
Internship
Students mediate cases, under close faculty supervision, in one of the Small Claims Courts in Greater Boston. Each day of mediation is followed by a debriefing session with the supervisor. A mediation seminar is part of the internship. The seminar enables students to compare mediating experiences, focus on particular problem areas encountered by mediators, and re-examine theoretical concepts.
Prerequisite: DisRes 601 or permission of program director.
Hrs to be arranged, 6 Credits

MA Program Courses

DisRes 621
Negotiation (M)
Negotiation is the bedrock skill in this field. The course addresses the development of negotiation techniques and fosters student knowledge of the substantial body of negotiation theory that is now available.
3 Lect Hrs, 3 Credits

DisRes 622
Ethics and Public Policy
Resolving conflict raises a number of ethical problems for neutrals (mediators), for advocates (negotiators), and for conflict resolution system designers. Ethics questions are also linked to a set of public policy questions raised by the field of dispute resolving. These include the relationship of mediation to law, therapy, and politics; the tension between voluntary and mandatory alternate dispute resolution programs; and the impact of alternate dispute resolution on power relationships.
Prerequisite: DisRes 690 or permission of program director.
3 Lect Hrs, 3 Credits

DisRes 623
Introductory Theory
This course examines the theories and assumptions underpinning the practice of negotiation and mediation. It identifies the major schools of thought which influence models in practice and shape research agendas. It examines theories critically, with three aims—uncovering implicit assumptions of practice, testing those assumptions against empirical evidence or other theories, and gleaning insights to assist practitioners.
3 Lect Hrs, 3 Credits

DisRes 624
Cross-Cultural Conflict
This course emphasizes the special characteristics of conflict based in religious, ethnic, national, or racial identity—conflicts that the field calls "intractable". The primary focus of the course is on intervention techniques that have been used and that have been proposed for use in these settings.
Prerequisite: DisRes 690 or permission of program director.
3 Lect Hrs, 3 Credits

Dispute Resolution

DisRes 625
Conflict, Organizations, and Systems
This course examines different systems for managing conflict. The system may exist in a large corporation, or between two or among many nations, between labor and management, or within a family. The system may be explicit and clear, informal and invisible, or both. The system may be effective or not. The course explores different kinds of conflict management systems and criteria for measuring their effectiveness; and discusses the analysis and design of dispute managing systems.
Prerequisite: DisRes 690 or permission of program director.
3 Lect Hrs, 3 Credits

DisRes 626
Advanced Intervention
This course applies the principles of mediation and other forms of intervention to a particular context. Each year the context changes. Possibilities include intervention in environmental disputes, family disputes, organizational disputes, or international disputes.
Prerequisite: DisRes 690 or permission of program director.
3 Lect Hrs, 3 Credits

DisRes 690
Internship
Students mediate cases, under close faculty supervision, in one of the Small Claims Courts in greater Boston. Each day of mediation is followed by a debriefing session with the supervisor. Part of the internship is a mediation seminar that enables students to compare mediating experiences, focus on particular problem areas encountered by mediators, and re-examine theoretical concepts.
Hrs to be arranged, 6 Credits

DisRes 691
Special Topics in Dispute Resolution
An advanced course offering intensive study of a selected topic in dispute resolution. With faculty approval, students select a topic from a broad range of options. The course can be used to deepen knowledge of the specialization area, or to broaden a student's range of dispute resolution experience. If a student chooses an elective that builds on context-specific knowledge acquired in DisRes 692, the student's transcript will reflect a specialization.
3 Lect Hrs, 3 Credits

DisRes 692
Conflict in Context
This course provides an opportunity for students to focus their conflict management training on issues and conflicts that occur in a specialized setting. Specialization options include, but are not limited to environmental sciences, human services, education, public affairs, business, and labor studies. The course selected should give the student an understanding of how conflict arises and is now managed in that particular setting.
Prerequisite: DisRes 690 or permission of program director.
3 Lect Hrs, 3 Credits

DisRes 693
Final Project and Workshop
Students design a project or apprenticeship to take place either where they work, at sites linked to their specialization, or at dispute resolution agencies. This project culminates in a work product (e.g. research paper, consultant plan). The accompanying workshop brings together all students working on projects to share their field experience, to discuss literature covered in previous courses, and to plan for their future learning as dispute resolvers.
Prerequisite: DisRes 690 or permission of program director.
Hrs to be arranged, 6 Credits

Education (EdD)

Higher Education Administration Track
Leadership in Urban Schools Track

Faculty

Higher Education Administration Track

Robert A. Dentler (William Monroe Trotter Institute for the Study of Black Culture), PhD, *University of Chicago* •Sociology of Education (Part-time)

Linda Eisenmann, EdD, *Harvard University* •the History of Education •Gender and Teaching

Zelda F Gamson, PhD, *Harvard University* •Organizational Change •Social Policy

Bernard W Harleston, PhD, *University of Rochester* •Issues of Faculty Diversity •Long Range Planning in Higher Education

Harold Horton (William Monroe Trotter Institute for the Study of Black Culture), PhD, *Ohio State University* •Minority Students in Higher Education (Part-time)

Sandra Kanter (College of Public and Community Service), PhD, *Massachusetts Institute of Technology* •Higher Education Policy •Non-traditional Students

Eleanor Kutz (Dean), PhD, *Indiana University* •Language •Literacy •Pedagogy

Ernest Lynton (New England Resource Center for Higher Education), PhD, *Yale University* •Faculty Roles and Rewards (Part-time)

Jean MacCormack (Chancellor), EdD, *University of Massachusetts Amherst* •Community Relations (Part-time)

Joan C Tonn (College of Management), PhD, *University of Michigan* •Organizational Life

Leadership in Urban Schools Track

Linda Eisenmann, EdD, *Harvard University* •the History of Education •Gender and Teaching

Bernard W Harleston, PhD, *University of Rochester* •Issues of Faculty Diversity •Motivation in Learning and Problem Solving

Peter Nien-Chu Kiang, EdD, *Harvard University* •Issues of Race and Culture in the Schools •Immigrant Community Development and Leadership

Eleanor Kutz (Dean), PhD, *Indiana University* •Language •Literacy •Pedagogy

Donaldo Macedo (English Department), EdD, PhD, *Boston University* •Multicultural Education •Critical Pedagogy

Victoria Steinitz (College of Public and Community Service), PhD, *Harvard University* •Student Centered Education •Critical Educational Theory

Lee **Teitel**, EdD, *Harvard University* • Leadership Development •Personnel Administration

Catherine Walsh, EdD, *University of Massachusetts Amherst* •Legal Advocacy •Desegregation

The Program

UMass Boston's EdD Program in Education is offered by the Graduate College of Education, and consists of two tracks. One track will lead to eligibility for positions of leadership in higher education, the other to leadership in urban elementary and secondary school management teams of the sort that are becoming recognized as the most effective approach to educational renewal.

The program is highly interdisciplinary: It entails work in history and in the social, organizational, and managerial sciences; and knowledge of current educational and developmental theory.

While addressing the full range of issues that face educational leaders, each of the tracks focuses on a specific sector of urban education.

Degree Requirements

Higher Education Administration Track

This track of the EdD program consists of 64 credits of work beyond the master's degree. Students are expected to spend one full day a week on campus during the academic year, and to participate in a three-week full-time summer institute during each of the first two summers. There are fifteen core courses (including the workshops that make up the summer institutes, a sequence of four professional development seminars, and a seminar designed to support the dissertation writing process), four electives, a qualifying examination at the end of the second year, and a 10-credit dissertation.

Leadership in Urban Schools Track

This track of the EdD program includes three 3-week summer institutes, fifteen core courses (two of which include team research projects and one a variable-credit internship), three electives, a qualifying paper at the end of the first semester of the third year and a dissertation.

Required Core Courses

Both Tracks

- Educational Leadership Skills I and II (Communication and Collaboration; Techniques of Practical Administration)
- Organization and Leadership in Educational Institutions
- Teaching, Learning, and Curriculum in Urban Contexts
- The Logic of Research in Professional Practice
- Data Collection and Analysis
- Dissertation Seminar
- Leadership Workshop

Higher Education Administration Only

- Current Issues in Higher Education Seminar I and II
- Professional Development Seminar I, II, III, and IV
- The History of Higher Education in the United States
- Public Policy Issues and Structures in Higher Education

Leadership in Urban Schools Only

- Critical Issues in Elementary and Secondary Education I and II
- Uses of Research in Urban Education
- The Culture of Urban Schools
- Team Research Project I, II
- Integrative Seminar I, II, III, IV, and V
- Educational Research: History and Critical Concepts

The Dissertation

Higher Education Administration

Dissertation planning may begin as early as the first year, but a formal proposal must be submitted for approval by the middle of the third year. The dissertation may be a field-based investigation into a problem of central importance in urban higher education, an analysis and critique of issues of policy, or a research-based investigation of a problem of significance to higher education. It will integrate the theoretical framework, research methodologies and practical knowledge acquired through the program.

Leadership in Urban Schools

Dissertation planning may begin as early as the first year, but a formal proposal must be submitted for approval by the middle of the third year. The dissertation should address a substantive question about some topic of importance to urban public schools, such as school organization, the development and implementation of policy, the school in its political and social contexts, collaborative educational enterprises, or the introduction of curricula and pedagogies that are responsive to diverse student populations.

Admission Requirements

Both Tracks

Please see the general statement of admission requirements for all graduate programs on page 9, and the "Special Instructions for Applicants to Individual Programs" section at the back of this publication.

The program seeks applicants who can demonstrate:

- accomplishments in the field of education, particularly through reform initiatives;
- a sustained interest in the culture, structure, and operation of educational institutions, in new approaches to administration and policy development, and in the nature and purpose of learning and teaching;
- the potential for academic success and for completing the program without delay;
- an interest in assuming a leadership role.

Education

Higher Education Administration Track

Applicants are invited to demonstrate the qualifications listed above through submission of an admission portfolio consisting of:

- a statement of about 1,500 words describing the applicant's background and career aspirations, with an emphasis on the kinds of changes in higher education the applicant is interested in bringing about. A critical situation in which the applicant was involved, as well as the applicant's role in that situation, should be described.
- a résumé or curriculum vitae that indicates, in part, that the applicant has substantial experience in a higher education institution or its equivalent.
- three letters, including one from an employer and at least one from a colleague, describing and giving evidence of the applicant's potential as an initiator and implementer of educational reform;
- a completed Employer Agreement Form, showing year by year how the applicant and his or her employer will arrange the applicant's work life to permit the applicant to meet the program's requirements (including a full weekday on campus each week during the semesters leading up to the qualifying paper);
- official transcripts of all previous academic work, graduate and undergraduate, demonstrating particularly that the applicant has earned a master's degree or equivalent from a college or university of recognized standing;
- test scores from the Miller Analogies Test (MAT) or the General Test of the Graduate Record Examination (GRE). *Please note: Submission of these scores is optional.*

The admissions committee will interview all finalists before making its recommendations for acceptance to the program.

Courses taken in other doctoral programs are not accepted for credit. Once enrolled, however, a student may petition for a waiver of an elective course, on the grounds that the student has completed its equivalent elsewhere. The petition must include clear documentation that the course meets the requirements of the program.

Complete applications must reach the University's Office of Graduate Admissions and Records by March 1.

Leadership in Urban Schools Track

Admission requirements for the Leadership in Urban Schools track are similar to those for the Higher Education Administration track except that the 1500-word essay should focus on elementary and secondary education. In addition there is no Employer Agreement Form. Completed applications must reach the University's Office of Graduate Admissions and Records by March 15.

Courses

Higher Education Administration Courses

The Logic of Research in Professional Practice
Data Collection and Analysis
The goal of this two-term research methods seminar is to help participants become effective users, evaluators, exchangers, and practitioners of institutional research and cross-institutional research on colleges and universities. As such, they will be expected to exchange knowledge, test policy and practice hypotheses and alleged innovations, and share in utilizing management information systems. The first semester of the seminars is devoted to building knowledge and practical skills in searching for information, accessing knowledge bases, appraising the quality of reports and other evidence, designing research, and collecting data, both quantitative and qualitative. The objectives are pursued through a textbook in social scientific research, a handbook of higher education research, and a series of excerpts from published work in the field. The second semester is devoted to analyzing quantitative and qualitative data, working on committees and project teams, learning the ethical standards of inquiry, and reporting and interpreting findings. Students prepare papers and undertake team projects in both semesters.

HighEd 601
Educational Leadership Skills I
This course focuses on a set of the individual, interpersonal and group skills that leaders of educational institutions must acquire if they are to effectively promote organizational change. At the individual level, the course focuses on five major areas of self-awareness: trust and trustworthiness, personal values and moral development, orientation toward change, interpersonal orientation, and personal temperament (including cognitive style). At the interpersonal level, the course assists students in forming accurate interpersonal perceptions and building communication skills. At the level of the group, students learn to diagnose group problems using theory and research about (1) group size, composition, and characteristics of group members; (2) stages of group development and team culture; (3) cognitive and relational roles in teams; and (4) patterns of intra-group communication. Particular attention is given to developing skills that enable students to function effectively in committees, interdepartmental working groups and leadership teams. In all course work, students are encouraged to consider the impact of gender and culture on skill development and practice. Required readings, cases, and a variety of experiential exercises and projects are used to facilitate skill development and build cohesiveness among the members of the doctoral program cohort.
3 Lect Hrs, 3 Credits

HighEd 602
Educational Leadership Skills II
This course consists of three discrete modules addressing some of the pragmatic skills considered essential for academic leaders. One module focuses on the role of leadership in developing, implementing and communicating an institutional mission; one module focuses on dispute resolution; and one module focuses on current developments in information technology and their applications in institutional management. Taken together, these three modules contribute to the goal and challenge of developing educational leaders as change agents.
3 Lect Hrs, 3 Credits

Education

HighEd 610
Current Issues in Higher Education I
This seminar is designed to allow students to explore current issues in higher education within three broad areas: the organizational structure and systems of colleges and universities, including governance; student life; and fiscal affairs. A major goal of the course is to insure that students learn about and are able to describe the functions of an institution of higher education. Particular emphasis is given to the effect of current practices and concerns on urban higher education. Running concurrently with the summer Educational Leadership Skills workshop, the seminar also addresses the broader framework and common language within which specific problems must be considered. Special emphasis is placed on strengthening analytic skills.
3 Lect Hrs, 3 Credits

HighEd 611
Current Issues in Higher Education II
This seminar focuses on problems and challenges involved in managing institutions of higher education and on strategies to effect change in underlying educational systems.
3 Lect Hrs, 3 Credits

HighEd 621
Professional Development Seminar I
The goal of the professional development seminars is to assist students to become more effective practitioners and change agents. Leadership requires both an ability to understand situations from many different perspectives and an ability to apply that understanding to motivate others to make positive change. The first semester of the professional development seminars (621) is devoted to the skills of observation. Readings, discussions, and the development of an actual case study will provide participants with the ability to understand and interpret the richness, complexity and difficulty of real situations. In the second semester (622), students move from the skills of observation to the skills of action and leadership. In addition to undertaking a project at their own institution designed to create meaningful change, students use the seminar to discuss readings which explore issues of change and leadership in higher education. Some field work is required.
3 Lect Hrs, 4 Credits

HighEd 622
Professional Development Seminar II
A continuation of HighEd 621, with special emphasis on leadership in higher education.
3 Lect Hrs, 4 Credits

HighEd 630
The History of Higher Education in the United States
This course surveys the history of higher education in the United States with a dual focus on mainstream collegiate institutions and nontraditional alternatives. Early class sessions explicate the development of traditional higher education from its liberal arts origins through the growth of the research university. Subsequent sessions explore how, over two centuries, various groups such as women, blacks, working-class, immigrant, and older students contended for places within higher education. Participants explore how institutions and their leaders responded to these challenges, sometimes creating accommodations or changes in traditional settings, and other times prompting new structures that often marginalized the newcomers. Several questions guide inquiry through the various eras and subjects: Whom do we educate? Why do we educate (our purposes and expectations)? How do we educate (in what sorts of institutions)? Where does responsibility lie for education? With what effects (or results) do we educate? The course does not presume a strong background in history.
3 Lect Hrs, 3 Credits

HighEd 632
Organization and Leadership in Educational Institutions
This core course focuses on educational institutions as complex organizations. It pays attention to the operation of institutions with few resources, as well as those with more plentiful resources. Drawing on readings and examples from many sources, participants look both inside and outside educational institutions, analyzing (1) the environments for educational institutions, especially those that affect resources; (2) the industry as a whole and sectors within it; and (3) social definitions of educational institutions. The course also pays close attention to the internal structures in these institutions, especially the interactions between bureaucratic structures and professionals; organizational cultures; governance and decision-making. The course then turns to a close analysis of organizational change from several points of view.
3 Lect Hrs, 3 Credits

HighEd 634
Public Policy Issues and Structures in Higher Education
This course explores the development of higher education policy. It is both a primer in how economics and politics form public policy and a critical look at this fusion in higher education. The course looks at the formation of public policy at the federal, regional and state levels of government.
3 Lect Hrs, 3 Credits

HighEd 697b
Professional Seminar III
A one-credit course focusing on the analysis of higher education system.
1 Lect Hr, 1 Credit

Professional Seminar IV
A one-credit course focusing on preparation for the qualifying paper. Note: At the time of publication, this course was pending final University approval. The most current information is available from the program office.

Education

Leadership in Urban Schools Courses

At the time of publication, the courses listed below were pending final University approval. The most current information is available from the program office.

EdLdr 701
Leadership Workshop I
The course focuses on the knowledge, skills, attitudes, and behaviors that participants in the doctoral program need to develop or acquire to be effective leaders in promoting organizational change in schools. Participants explore five inter-related facets of their own leadership development: (1) their operating conceptions and definitions of leadership and their set of understandings and beliefs about organizations, change, and leadership; (2) their visions and goals for schools and why those goals are important to them; (3) their individual, interpersonal, and group skills, including their sensitivity to how issues of race, class, and gender affect these; (4) the organizational and broader sociocultural contexts in which they work and their understandings about how these contexts affect issues of leadership and organizational change; and (5) their personal journey toward leadership roles in schools, including their own history and how it is affected by their cultural background, their self-assessment of their strengths and weaknesses, and their plans for personal learning. By the end of the course, participants will have completed an initial version of a leadership and learning portfolio, which will be added to and modified over the course of their doctoral work.

Integrative Seminars I and II
These seminars provide participants with the opportunity to integrate materials, concepts, and approaches from the first summer session; and with a bridging mechanism to form connections with the other course work of their first academic year. As part of the seminar, participants revisit the articulation of their leadership goals and vision, assess their strengths and weaknesses, and revise the leadership and hearing portfolios they begin in the summer. They continue to develop interpersonal group process and leadership skills that help in supporting and making change in schools.

EdLdr 703
Critical Issues in Education
This course examines a range of critical issues of importance to urban school leaders in the context of the changing relationship between our schools and our society. Issues include: demographic changes in the student population, multiculturalism, desegregation, bilingual education, special education, tracking, new curricular and pedagogical initiatives (e.g. hands-on math and science learning, interdisciplinary instruction), alternative assessment, school-to-work transition, school reform in its various aspects, school finance reform, and new research paradigms.

The Uses of Research in Urban Schools
This course introduces students to the research paradigms currently being debated and the research literature on key controversial issues. Through examination of influential studies and their critiques, participants assess the uses and limits of research findings in the resolution of debates about school practices and policies. They are also encouraged to take first steps toward identifying the questions and methods they will pursue in their own thesis work.

The course is intended primarily for first year doctoral students in the Leadership in Urban Schools track and has been designed to be taught in tandem with The Culture of Urban Schools.

The Culture of Urban Schools
This course focuses on inquiry into the nature of urban schools, including social context and structural inequalities. Participants study social and cultural practices and relations in an urban school site, examine how structural concerns influence school culture, and read studies of urban schools that highlight problems, successes, struggles, and transformations. Through active dialogue with their peers, they reflect upon the complexities of daily life and change in urban schools and identify questions and directions for further exploration and study.

Teaching, Learning and Curriculum in Urban Contexts
This course will investigate common concerns in addressing the needs of urban learners, in the elementary and secondary learning environments. It will consider questions of human development in several domains, current problems and controversies about learning, and responsive curricula and pedagogies. Readings will frame issues across age groups and educational contexts, with additional material for each topic focusing on particular age groups and levels of schooling.
3 Lect Hrs, 3 Credits

The Historical Roots of Contemporary Urban Schooling
Most issues of educational policy and practice are rooted in a historical context that is deeply influential but often widely unexamined. This course considers the historical development of several contemporary educational issues, recognizing their roots in intense debates in American history. Although it does not provide explicit guidance for today's practitioners, this historical understanding should help them in approaching the complexities of their current concerns. With 19th- and 20th-century urban schooling as the focus, topics include responses to racial, ethnic, and gender identities of students; the development of national standards for curriculum and testing; changes in the structure of schooling; the relative responsibilities of public and private educational institutions; the professional identity of teachers and school administrators; and schools as the site of social reform.

Education, Early Childhood, Elementary and Secondary (MEd, Teacher Certification)

Faculty

Louisa Birch, MEd, *Wheelock College*, MEd, *Harvard University*, •Computers •Educational Technology (Part-time)

Joseph Check, PhD, *Tufts University* •Contemporary Issues in Education (Part-time)

Judith Clark, EdD, *Harvard University* •Mathematics Education

James Collins, EdD, *University of Massachusetts Amherst* •Elementary Education

Catherine Spence Desjardins (Institute for Learning and Teaching), MA, *Boston University* •Multicultural Literature for Children •Language and Literacy Development (Part-time)

Peter Golden (Institute for Learning and Teaching), MA, *The National University of Ireland* •The Teaching of Writing (Part-time)

Ronald Grinnell, PhD, *University of Connecticut* •Secondary Education

Suzy Q Groden, EdD, *Harvard University* •Language and Literacy Development •Middle School Education •Assessment

Joanne Gurry, EdD, *Boston University* •Curriculum and Instruction (Part-time)

Peter Kiang, EdD, *Harvard University* •Multicultural Curriculum Development and Instruction •Social Studies Instruction

Prudence King, EdD, *Harvard University* •Secondary Education (Part-time)

James Parziale, MS, *Northeastern University* •Science Education •Cognitive Development (Part-time)

Carmen Quintiliani, EdD, *Boston University* •Reading and Language Development (Part-time)

Ann Silverman, MEd, *Tufts University* •Art Education (Part-time)

Catherine Walsh, EdD, *University of Massachusetts Amherst* •Sociocultural Perspectives on Education •Multicultural Education

The Program

The MEd in Education Program is an interdisciplinary program involving appropriate disciplines in the liberal arts and education. The program currently offers two tracks, each of which provides options at the early childhood, elementary, and secondary level. Track A is for individuals who wish to earn a Master of Education degree without certification. The majority of the students in this track are teachers who already have standard certification, and who wish to earn a master's degree in order to maintain that status in the Commonwealth of Massachusetts. Track B meets the needs of those seeking provisional certification with advanced standing in Massachusetts.

A clinical master's degree, which will constitute a third track in the MEd Program, is being developed at this time. It will meet the needs of those who have earned provisional certification with advanced standing while undergraduates, and who wish to earn standard certification and a Master of Education degree. At the time of publication, this track is scheduled to be submitted for university approval in 1995.

Degree Requirements

The Track A Program

Thirty-three credits and a final comprehensive examination are required for the completion of the MEd. The credits are distributed as follows:

1. All students take the following core (for a total of 12 credits):

- Educ 642: The Organization of School Curriculum
- One course in critical and creative thinking
- One course in dispute resolution
- One course focused on urban education

2. Seven additional courses, focused on a specific area of interest. (21 credits)
3. A final written comprehensive examination addressing the significant issues in contemporary education, and reflecting the study and research each student has carried out in pursuit of the degree.

The Track B (Certification) Program

Thirty-six credits are required for the completion of the MEd in early childhood, elementary, or secondary education, in combination with provisional certification with advanced standing. This includes a full six-credit practicum (students who are eligible for a half practicum or internship may graduate with thirty-three credits).

In response to changes in the state's regulations for the certification of educational personnel (in effect as of October 1, 1994), the Master of Education/Teacher Certification curriculum has been slightly revised. The academic year 1995-1996 is planned as a period of transition, in which students who began under the old regulations will be able to complete programs of study that satisfy the new regulations while making as much use as possible of prior course work. During this transition period, the exact combination of courses required for certification and the master's degree will vary, on a case-by-case basis.

Beginning in the academic year 1995-1996, the most common pattern of credit distribution will be as follows:

1. For students seeking elementary certification:

   A. Courses for Provisional Certification with Advanced Standing at the elementary level (33 credits):

      Educ 603 (Creating Effective Learning Environments: K-6)
      Educ 610 (Computers, Technology, and Education)
      Educ 616 (Applied Research in Mathematics)
      Educ 617 (Applied Research in the Language Arts)
      Educ 618 (Designing Instruction: Social Studies)
      Educ 619 (Designing Instruction: Science)
      Educ 620 (Designing Instruction: The Arts)
      Educ 641 (Contemporary Issues in Education)
      or
      Educ 606 (Sociocultural Perspectives on Education)
      Educ 644 (Developmental Stages: Childhood to Adolescence)
      Educ 698 (Graduate Practicum)

   B. One elective, chosen from the following list:

      Educ 606 (Sociocultural Perspectives on Education)
      or
      Educ 641 (Contemporary Issues in Education)
      Educ 621 (Teaching Writing: K-12)
      Educ 642 (The Organization of Curriculum)
      Educ 647 (Multicultural Literature for Children and Young Adults)

      One course in critical and creative thinking (for a description of the courses, see the Critical and Creative Thinking Program section of this publication).

Education, Early Childhood, Elementary and Secondary

2. For students seeking certification at the secondary level, in addition to the completion of the field of knowledge requirements (a bachelor's degree or the equivalent in the subject to be taught):

   A. Courses for Provisional Certification with Advanced Standing at the secondary level (24 credits):

   Educ 610 (Computers, Technology, and Education)
   Educ 641 (Contemporary Issues in Education)
   or
   Educ 606 (Sociocultural Perspectives on Education)
   Educ 644 (Developmental Stages: Childhood to Adolescence)
   Educ 660 (Designing Instruction: Secondary Education: Specific Subjects)
   Educ 697 (The High School as an Organization for Teaching and Learning)*
   Educ 597p (Teaching and Learning in the Discipline)* (This course is shared with the undergraduate program for provisional teacher certification. Additional work, beyond that done by undergraduates, is required for graduate credit).
   Educ 698 (Graduate Practicum)

   B. The following three courses (9 credits)

   Educ 606 (Education: Sociocultural Perspectives)
   or
   Educ 641 (Contemporary Issues in Education)
   Educ 621 (Teaching Writing: K-12)
   One graduate-level elective in the field of knowledge

   C. One course from the following list (3 credits):

   Educ 640 (Reading in the Content Area)
   Educ 642 (The Organization of Curriculum)
   Educ 647 (Multicultural Literature for Children and Young Adults)

One course in critical and creative thinking (for a description of the courses in the Critical and Creative Thinking Program, please see that section of this publication).

3. For students seeking certification in early childhood education:

   A. Courses for Provisional Certification with Advanced Standing at the early childhood level (27 credits):

   Educ 616 (Applied Research in Mathematics)
   Educ 617 (Applied Research in the Language Arts)
   Educ 620 (Designing Instruction: The Arts)
   Educ 641 (Contemporary Issues in Education)
   or
   Educ 606 (Sociocultural Perspectives on Education)
   Educ 644 (Developmental Stages: Childhood to Adolescence)
   Educ 697 (Creating Effective Learning Environments: N-3)*
   SpEd 627 (Clinical Teaching I (Early Childhood) (for a full description of this course, please see the Special Education section of this publication)
   Educ 698 (Graduate Practicum)

   B. Three courses drawn from the following list (9 credits):

   Educ 606 (Education: Sociocultural Perspectives)
   or
   Educ 641 (Contemporary Issues in Education)
   Educ 610 (Computers, Technology, and Education)
   Educ 621 (Teaching Writing: K-12)
   Educ 642 (The Organization of Curriculum)
   Educ 647 (Multicultural Literature for Children and Young Adults)

   One course in critical and creative thinking (for a description of the courses in the Critical and Creative Thinking Program, please consult that section of this publication).

*At the time of publication, this course was pending University approval,

New State Certification Requirements

Please note: Although the Massachusetts Legislature passed the Education Reform Act in June of 1993, and the date for implementation of the certification-related aspects of that bill was October 1, 1994, at the time of this publication, there were still some facets of the certification regulations being discussed at the state level. Please consult the University Certification Officer for the most accurate and current information about state certification requirements.

As of October 1, 1994, the certification of educational personnel requires a bachelor's degree in one of the liberal arts or sciences, and may be earned through the completion of a program that has been approved by the Massachusetts Department of Education, with course and field work that include at least 75 monitored hours of pre-practicum field observations and a supervised student teaching experience or internship. Individuals who have completed such a program will be granted "Provisional Certification with Advanced Standing," and are eligible to teach in a public school Provisionally certified teachers have up to five years from the time they are first employed to complete the additional requirements for "Standard Certification." These include a master's degree or the equivalent, graduate study in the field of knowledge, a supervised clinical experience, and the completion of an appropriate research project. Standard Certification is renewable every five years, recertification requiring the accumulation of "Professional Development Points" and the payment of a fee. After October 1st, 1994, all Massachusetts teaching certificates will be subject to renewal, including those issued prior to that date.

An individual with a bachelor's degree (in one of the liberal arts or sciences) who wishes to be certified to teach early childhood, elementary, or secondary school, may opt to do the course work for provisional certification in the context of a master's degree.

The June, 1993 Education Reform Act contained language stipulating that, in addition to the course and field requirements of an approved teacher certification program, provisional certification with advanced standing will require satisfactory performance on a test of proficiency in written and spoken English, and on competency examinations in the field of knowledge. The field of knowledge for a secondary school teacher is the discipline to be taught (eg, English, math, biology, history); for an elementary or early childhood teacher it is the range of subjects covered in the elementary or early childhood curriculum (eg, language arts, social studies, mathematics, science, art, and others.).

Education, Early Childhood, Elementary and Secondary

Admission Requirements

The MEd Program will recommend admission for those applicants who present evidence of their ability to do graduate work with distinction Such evidence will normally include

1. a distinguished undergraduate transcript, with an overall GPA of 2.75;
2. evidence of satisfactory grades in the major discipline (for secondary education applicants at least 3.00 in the discipline to be taught);
3. three positive and informed letters of recommendation submitted by persons who are knowledgeable about the candidate's potential success both as a graduate student and as a teacher. In the case of Track A students, at least one of these letters should be from a person who serves, or has served, in a supervisory capacity to the candidate;
4. submission of Graduate Record Examination (GRE) or Miller Analogies Test (MAT) scores. An applicant who already holds an advanced degree is exempt from this requirement;
5. the completion of a written statement demonstrating writing proficiency and including the following information:
   a. the applicant's specific goals,
   b. for applicants to Track B) the applicant's reasons for wanting to become a teacher at the specific level or in the specific field for which certification is being sought,
   c. elevant aspects of the applicant's background,
   d. the applicant's philosophy of education, and thoughts about contemporary schools, and current movements in education.

Please note: This statement replaces the "Statement of Interests and Intent" referred to in the Graduate Admissions Application instructions at the back of this publication.

Transfer Credit

Please see the general statement on transfer credit on page 29 of this publication. Students interested in becoming candidates for the degree must matriculate before their third graduate course.

Courses

Educ 603
Creating Effective Learning Environments (K-6)
This course introduces methods for the creation of effective learning environments and the use of a variety of methods to facilitate planning, classroom organization for cooperative and active learning, curriculum development, student evaluation and assessment, team and co-teaching, and the uses of new educational technologies. Attention is given to the challenges posed by inclusionary classrooms, and to the ways in which differences can be celebrated and used to enhance the educational experiences of children.
3 Lect Hrs, 3 Credits
Mr Collins

Educ 606
Sociocultural Perspectives on Education
This course examines the interrelationships between students, schools, and society, and serves as a foundation for understanding the theory and practice of multicultural education. Special attention is paid to issues of race, language, and culture, and their influence on individuals in educational institutions, particularly in urban environments The course allows students to learn from and apply ethnographic methods of research in educational settings.
3 Lect Hrs, 3 Credits
Mr Kiang, Ms Walsh

Educ 610
Computers, Technology, and Education
This course provides a selected survey of currently available Computer Assisted Instruction programs for literacy and mathematics development, social studies, critical thinking and problem solving, and creativity at the elementary, middle, and secondary levels, and hands-on instruction in their integration into curricula. Participants learn about the range of currently available educational software for microcomputers and explore the pedagogical issues raised by the use of microcomputers and other forms of advanced educational technology for students, teachers, and school administrators: in particular, consequences for learning, problem solving, organizing data, creativity, etc. For those who need it, the course also provides an introduction to how microcomputers work, including hands-on experience in simple programming for both beginners and students with some experience in the use of microcomputers.
3 Lect Hrs, 3 Credits
Ms Birch

Educ 612
Evaluation and Design of Educational Software
This course is designed to acquaint participants with techniques for evaluating various kinds of educational software, with the process of software design, and with the use of an authoring language
Prerequisite: Educ 610
3 Lect Hrs, 3 Credits
(Not offered 1995-1997)

Educ 614
Interactive Video Instruction
This course examines the process of developing and producing interactive video programs, using computers and video tape, for instructional purposes Special attention is given to the study of interactive design principles and the evaluation of interactive video.
3 Lect Hrs, 3 Credits
(Not offered 1995-1997)

Educ 616
Applied Research in Mathematics
This course explores critical issues related to implementing the NCTM Standards, and reviews selected research findings and theories of learning. Students examine various methods and materials for teaching mathematics in grades N-6; engage in problem-solving and problem-posing activities; observe and work with children in a pre-practicum field site; and critically examine how their experiences relate to the teaching and learning of mathematics. Field observations are required.
3 Lect Hrs, 3 Credits
Ms Clark

Educ 617
Applied Research in the Language Arts
This course explores and challenges generally-held assumptions about the teaching and learning of language arts for students N-12. It provides an opportunity to review current trends in the teaching of language arts and new research findings about language and literacy acquisition; to develop practical methods for applying those findings and encouraging thoughtful reading, writing, speaking, and listening; and to become familiar with resources that support that work. The field component of the course provides opportunities for the observation and critique of various kinds of classroom practices, and the study of particular cases of language and literacy acquisition. Field observations are required.
3 Lect Hrs, 3 Credits

Education, Early Childhood, Elementary and Secondary

Educ 618
Designing Instruction: Social Studies
This field-based course develops philosophical perspectives and practical approaches to designing and evaluating social studies curricula appropriate to elementary, middle, and secondary school classrooms. Strategies for integrating multicultural perspectives across the curriculum are modeled. Site visits and guest presentations identify local resources for teachers and exemplary approaches to social studies curriculum design.
3 Lect Hrs, 3 Credits
Mr Kiang

Educ 619
Designing Instruction: Science
This course explores techniques for teaching science concepts to students in grades N-6, examining materials, methods, and curricula currently being used The course focuses on the development of participants' skills in science, and on the use of questioning methods that help develop higher order thinking skills in the young child. Participants have the opportunity to be both learners and instructors in a wide range of science activities.
3 Lect Hrs, 3 Credits
Mr Parziale

Educ 620
Designing Instruction: the Arts
This course offers an experiential model of arts integration based in classroom practice. The course combines current theory concerning the role of art in cognitive development with hands-on workshops and exercises geared to enhance participants' skill and confidence with diverse media. Topics include an examination of constructive processes, integrative curriculum design, the use of the arts to foster learning and intellectual growth, different learning styles, fine and gross motor activity in the classroom, and the importance of play and physical activities in the classroom.
3 Lect Hrs, 3 Credits
Ms Silverman

Educ 621
Teaching Writing in the K-12 Classroom
This course deals with the teaching of writing, the teacher as writer, and the interactions between reading and writing. Readings and presentations offer up-to-date information, theory, and practical techniques for teaching reading and writing in all subject areas Students meet regularly in reader-writer response groups to work on their own writing and to respond to one another's writing about reading. There are a number of guest lecture-demonstrations by elementary and secondary teachers who are teacher/consultants with the Boston Writing Project. The course combines writing process theory with practical methods.
3 Lect Hrs, 3 Credits
Mr Golden

Educ 636
Individually Guided Education
This course stresses the adaptation of various instructional methods to individual differences, and the continuous improvement of such instruction. The course examines new forms of behavior for teachers, various learning options for students based on their mapped cognitive learning styles, and a revised form of school organization and administration.
3 Lect Hrs, 3 Credits
(Not offered 1995-1997)

Educ 640
Reading in the Content Areas
This course familiarizes participants with developmental reading techniques appropriate for students using various textual materials. Attention is given to the integration and application of reading and study skills in a number of content areas. Field-based observations are required.
3 Lect Hrs, 3 Credits
Mr Quintiliani

Educ 641
Contemporary Issues in Education
This course addresses the significant issues that affect schools today: finance, national and international politics, multiculturalism, education reform movements and law, innovative educational practices, the profession of teaching, the power of leadership within educational organizations. Presentations by practitioners and other experts on the issues under consideration are featured .
3 Lect Hrs, 3 Credits
Mr Check

Educ 642
Organization of School Curriculum
This course analyzes the development and outcomes of a variety of models of elementary, middle, and secondary school curricula, through a combination of academic course and directed field work. Particular emphasis is placed on the development of thematic, integrative, and multicultural curricula, and on methods of embedding in the curriculum supports that will increase the likelihood of all children's succeeding as learners. Participants become familiar with curriculum sources and materials, and current approaches to assessment; and explore the dynamic interactions among teachers, administrators, families, and communities in conceptualizing, implementing, and evaluating curriculum. Field observations are required.
3 Lect Hrs, 3 Credits
Ms Gurry

Educ 643
Behavior and Classroom Management
This course explores a diverse range of strategies and techniques that may be used to eliminate or alleviate dysfunctional and/or disruptive behavior in the contemporary mainstreamed classroom.
3 Lect Hrs, 3 Credits
(Not offered 1995-1997)

Educ 644
Developmental Stages: Childhood to Adolescence
This course examines current research and theory about human intellectual, social, and affective development from infancy through adolescence. Topics include the development of linguistic, symbolic, and quantitative systems, cognition, creativity, the developmental interactions of culture, thought, language, and learning, and the implications of current developmental theory and research for educators.
3 Lect Hrs, 3 Credits
Mr Parziale

Educ 647
Multicultural Literature for Children and Young Adults
This course focuses on creating a community of readers and learners in the classroom. Students come to know a broad range of literature and authors representative of the diverse cultures found in urban schools. Collaborative learning methods and journals help to foster reflection on literature-based reading strategies and resources, and to translate them into classroom practice. Field-based observations are required.
3 Lect Hrs, 3 Credits
Ms Desjardins

Educ 660
Designing Instruction: Secondary Education Special Subjects
This course examines current principles of curriculum and instruction, and state and national standards for the teaching of the disciplines at the middle and secondary school levels. Students review teaching materials and methods, design curriculum units, develop strategies for communicating with students from diverse backgrounds, do micro-teaching, design assessment and evaluation instruments, and critique their own and one another's efforts. This is a field-based course in which students are asked to reflect on the learning and teaching they see in a variety of school sites, and apply what they observe as they design curriculum units.
3 Lect Hrs, 3 Credits
Mr Grinnell

Education, Early Childhood, Elementary and Secondary

Educ 670
Internship in Education
An intern is an employed teacher, fulfilling the practicum requirement for certification in his or her own classroom, under the joint supervision of a University-based faculty member and a designated mentor at the school. As a regularly employed teacher, the intern works with children and applies practical and theoretical knowledge. Interns plan lessons, teach classes, and evaluate students. They also review student records and apply their knowledge of curriculum by selecting materials and designing learning activities. They draw on current ideas and research to develop and demonstrate their own classroom teaching. Interns meet regularly with the University supervisor and other practicum students in a practicum seminar, to reflect on the practicum experience. Applicants for an internship must take two steps: 1)a special internship application form must be approved by the Department of Education, the school-based supervisor, and the University Certification Officer; and 2) a program practicum application form must be approved by the program director. This must be filed by the fifth week of the semester before the one in which the student wishes to undertake the internship.
Prerequisite: Permission of program director, the Massachusetts Department of Education, the school-based supervisor, and the University Certification Officer.
3 Lect Hrs, 3 Credits

Educ 696
Independent Study
This is a directed study of a particular topic in education. The work is pursued under the guidance of, and is assessed by, the instructor. A proposal or outline of study, signed by the instructor, must be submitted for approval to the program director before the beginning of the semester in which the project is to be undertaken. On approving the proposal, the program director will arrange for registration.
3 Lect Hrs, 3 Credits

Educ 697
Special Topics in Education
This can be any course on a specific topic in the field of education that has not been formally proposed as a permanent component of the program. Pilot versions of courses that will eventually be assigned permanent numbers are often offered first as 697 courses for one or two semesters. The course contents and credits of each semester's 697 courses are announced during the registration period.
3-6 Lect Hrs, 3-6 Credits

Educ 698a
Graduate Practicum: Student Teaching (Early Childhood Education)

Educ 698b
Graduate Practicum: Student Teaching (Elementary Education)

Educ 698c
Graduate Practicum: Student Teaching (Middle School Education)

Educ 698d
Graduate Practicum: Student Teaching (Secondary Education)
Each practicum provides students with the opportunity to put theory and technique into practice at the level of their specialization. Students demonstrate their teaching skills in a school, with supervision by both a certified cooperating teacher and a member of the program's faculty. They also attend a seminar led by the University supervisor. The seminar provides an opportunity for student teachers to share their practicum experiences, to try out and critique plans and ideas, to air and solve problems, and to reflect on the process by which they are becoming educational professionals. A formal application to do a practicum must be filed by the fifth week of the semester before the one in which the student wishes to undertake the practicum.
Prerequisite: Satisfactory completion of all other requirements for certification and permission of the program director.
3 Lect Hrs, 6 Credits

Educational Administration (MEd, CAGS)

Faculty

Daniel J Bresnahan, EdD, *Columbia University* •Principalship •Facility Design and Fiscal Management

Laura Cooper, EdD, *Harvard University* •Theories, Development, and Evaluation of Curriculum

Frederick C Gamst (Anthropology Department), PhD, *University of California at Berkeley* •Social Dynamics in Organizations

Richard A Hogarty (College of Public and Community Service), PhD, *Princeton University* •Politics and the Educational Process

Jean MacCormack (Chancellor), EdD, *University of Massachusetts at Amherst* •Community Relations (Part-time)

Charles F McCarthy, EdD, *Boston University* •Organizational Analysis, Organizational Change

Lee Teitel, EdD, *Harvard University* •Leadership Development •Organizational Analysis

The Program

The MEd Program in Educational Administration is designed for educators who seek a variety of leadership roles in schools or related institutions. For those who plan to prepare for top-level positions in educational administration, the program serves as a foundation for further graduate study.

All students in the program enroll in a group of core courses providing a comprehensive view of educational leadership and in a practicum involving supervised work in the field. Within this common framework, students specialize through their pre-practicum and practicum experiences in preparing for roles as principal. assistant principal, supervisor/director, or administrator of special education. The program uses a cohort model, and accepts students once a year, in the spring, to begin their studies in the summer term.

Degree Requirements

1. A minimum total of thirty-six graduate credits is required to complete this program. Courses are generally offered to accommodate the educational practitioner, in the late afternoon and evening, and during the summer months.
2. All students are required to take a core of courses.
3. A practicum or internship in educational administration is required of all students.
4. All students must pass a final comprehensive examination covering a significant portion of their course work.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9.

The Educational Administration Program will recommend admission for those applicants who present evidence of their ability to do graduate work with distinction. Such evidence will normally include

1. An undergraduate grade point average at the time of graduation of at least 2.75, as evidenced by an official transcript.
2. Three letters of recommendation from people familiar with the applicant's leadership ability and/or potential.
3. Documentation of two or more years of full time teaching as a certified teacher at grade levels K-12
4. Documentation of state teaching certificate.
5. Submission of the Graduate Record Examination (GRE) or the Miller Analogies Test (MAT) scores. Submission of these scores is not required but optional.
6. An interview with the program director.

The Certificate of Advanced Graduate Study in Educational Administration (CAGS)

The CAGS Program in Educational Administration provides the opportunity for those who already hold a master of education degree to pursue additional graduate work.

In conjunction with the group of required courses that form the core of this program, the student will select appropriate elective courses in keeping with his or her area of specialization, needs, and interests.

Certificate Requirements

The applicant for the CAGS will be expected to hold a master's degree in some area of education from a nationally accredited institution; the applicant will also be expected to meet all of the admission requirements for the MEd program.

A minimum of thirty-six graduate credits is required to complete this program. Courses are generally offered to accommodate the educational practitioner, in the late afternoon and evening, and during the summer months.

A core of courses forms the nucleus of this program and is required of all students.

A practicum or internship in an educational administrative field experience is required of all students, unless they have already completed one as part of previous master's-level work. If the practicum requirement is waived, the applicant will take two elective courses from within the program, or in another UMass Boston graduate program, with the approval of the director of the Educational Administration Program.

All students must pass a comprehensive examination.

Courses

Adm 601
Organizational Analysis
This course examines a selected number of the most important concepts that comprise organizational theory and relates them to the structure and operational management of educational institutions. Field experience is a required part of the course.
3 Lect Hrs, 3 Credits
Mr Teitel

Adm 603
Organizational Change
Principles and practices drawn from behavioral science theory are employed as means of studying the processes of change and renewal in educational organizations. Field experience is a required part of the course.
Prerequisite: Adm 601 or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Teitel

Adm 604
Philosophical Foundations of Education
This course draws its readings from the works of both contemporary and historical philosophers of education. Topics include the relationship of schools to their society; the distinction between schooling and education; differing conceptions of the term "school"; the content and adequacy of such educational goals as rationality, autonomy, and critical thinking; the nature and structure of liberal and vocational curricula; the place of values in education; and the nature of teaching and learning.
3 Lect Hrs, 3 Credits

Adm 610
Research Design
This course introduces quantitative and qualitative methods of research and evaluation for educational administrators including basic concepts of statistics, data analysis, observation and inquiry, and interview and questionnaire design. Field experience is a required part of the course.
3 Lect Hrs, 3 Credits
Mr Teitel

Educational Administration

Adm 613
Personnel: Administration, Supervision, and Evaluation
This course examines staff development and supervisory approaches that can assist in the creation of improved teaching-learning climates in classrooms. Field experience is a required part of the course.
3 Lect Hrs, 3 Credits
Mr Teitel

Adm 621
Curriculum: Theories, Development and Evaluation
Beginning with an examination of the definition of curriculum from multiple perspectives, this course focuses on the interrelationships among curriculum, instruction, and assessment. Participants examine the implications, for curriculum development and evaluation, of the research on cognition and of alternative approaches to assessment. Field experience is a required part of the course.
3 Lect Hrs, 3 Credits
Ms Cooper

Adm 622
Curriculum: Status, Issues, and Trends
While meaningful change happens at the local school level, national standards and state curriculum frameworks are influencing local reform efforts by establishing "world class" standards for student achievement. This course engages participants in developing a change effort that utilizes both the research on how children learn, and the standards movement that defines what children need to know and be able to do. Field experience is a required part of the course.
Prerequisite: Adm 621 or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Cooper

Adm 624
The Principalship
An examination of contemporary administrative theory and practice essential to the effective organization and management of a school. Legal issues relevant to school operations will also be explored. Field experience is a required part of the course.
3 Lect Hrs, 3 Credits
Mr Bresnahan

Adm 627
The Law of Public Education
Current legal concepts and practices which concern the rights, liabilities, duties, and responsibilities of all personnel employed by public schools and school systems will be explored. Particular attention is given to these matters as they pertain to those who are, or aspire to be, administrators or supervisors.
3 Lect Hrs, 3 Credits
Mr Bresnahan

Adm 630
Fiscal Management
Financing public educational systems has emerged as one of the most pressing problems facing communities across America today. This course explores those fiscal policies and practices that have proved both operationally feasible and cost effective. Discussions also focus on legal issues relevant to the fiscal management of schools. Some field experience is involved.
3 Lect Hrs, 3 Credits

Adm 631
Microcomputers for School Administrators
This course provides a general introduction to computers and their applicability to school and school systems operation. Appropriate software is demonstrated and students have opportunities to gain practical experience in the operation of microcomputers.
3 Lect Hrs, 3 Credits

Adm 632
Facility Design and Fiscal Management
This course explores three related areas. The first is the process of design, construction, and equipping of school facilities to meet the needs of a given community. Second, the course focuses on topics related to fiscal management: strategic planning, analysis of resources, and developing a budget through an integrated approach to school management. Finally, the course examines legal issues pertaining to facility and fiscal concerns. Field experience is a required part of the course.
3 Lect Hrs, 3 Credits
Mr Bresnahan

Adm 633
Educational Facilities: Design and Management
This course examines the complicated array of interrelated variables that must be considered by the administrative team in designing and managing school facilities. The course also reviews a wide range of existing school facilities.
3 Lect Hrs, 3 Credits

Adm 646
Leadership Development
Concepts drawn from the behavioral sciences are used as a basis for leadership skill development. Participants will engage in a series of leadership strategies in simulated situations which will enable them to better understand, predict and modify their own behavior and that of others in organizational settings.
3 Lect Hrs, 3 Credits

Adm 648
Labor Relations and Collective Bargaining
This course is an in-depth study of the Massachusetts statute regulating labor relations of public employees in collective bargaining. Students learn about the application of this law through the use of case studies and through role playing as management and employee representatives in the negotiating process.
3 Lect Hrs, 3 Credits
Mr Bresnahan

Adm 651
Community Relations
This course focuses on how schools and school systems may develop strong, positive relationships with the communities they serve, through such efforts as team building, developing consensus, establishing coalitions and group problem solving.
3 Lect Hrs, 3 Credits

Adm 652
Social Dynamics in Organizations
An examination of human performance with reference to the social dynamics of groups in their organizational settings. The course focuses on such theoretical and practical topics as group structures, bureaucracy and its web of rules, human relations and human resources, the individual in the organization, consensus and conflict, leadership, communication, discipline, decision-making, motivation, meetings, employee participation, and selected special issues.
3 Lect Hrs, 3 Credits

Adm 653
Politics and the Educative Process
This course views education as public policy delivered through and carried out by political organizations. Consideration is also given to the environment in which such organizations operate.
3 Lect Hrs, 3 Credits

Adm 654
Advanced Seminar in Administration
Through group discussions, this course explores the major features of the major issues facing school systems today and the implications of these issues for individuals in school leadership roles.
3 Lect Hrs, 3 Credits

Educational Administration

Adm 655
Advanced Seminar in Supervision
Both traditional and contemporary practices of supervising teachers and related support staff in educational settings are examined in the light of extremely austere municipal budgets, collective bargaining positions, legal rights and other such factors generally perceived as playing significant roles in the supervisory process.
3 Lect Hrs, 3 Credits

Adm 656
Urban Education Seminar
This course studies some of the many challenges now making an impact on our urban schools. Special attention is given to those urban schools that have had a noteworthy degree of success in addressing and meeting these challenges.
3 Lect Hrs, 3 Credits

Adm 660
Effective Schooling
An examination of the research findings and personal reflections of noted educators on the determinants of effective schooling. Particular emphasis is placed on the pivotal role of school administrators and supervisors in the development and maintenance of effective schools.
3 Lect Hrs, 3 Credits

Adm 696
Research Project
In close consultation with a staff member a student will undertake a research project treating an actual problem or concern in an educational institution.
Hrs to be arranged, 3 Credits

Adm 697
Special Topics in Educational Administration
An advanced course offering intensive study of selected topics in educational administration. Course content will vary according to the topic and will be announced prior to registration.
3-6 Lect Hrs, 3-6 Credits

Adm 698
Internship or Full-time Practicum in Educational Administration
A laboratory course providing practical experience in educational administration, with special focus on the role of the principal/assistant principal, the supervisor/director, or the administrator of special education. This course combines field experience in an appropriate setting with a seminar focused on relevant issues and concerns. It is reserved for those students who can assume their duties on a full-time basis.
Prerequisite: Permission of program director.
3 Lect Hrs, 3 Credits

Adm 699a
Part-time Practicum I in Educational Administration
A laboratory course providing practical experience in educational administration on a part-time basis, with special focus on the role of the principal/ assistant principal, the supervisor/director, or the administrator of special education. This course combines field experience in an appropriate setting with a seminar focused on relevant issues and concerns. It is designed for part-time students who are able to devote ten hours per week over a 15 week span to administrative or supervisory duties and responsibilities.
Prerequisite: Permission of program director.
3 Lect Hrs, 3 Credits

Adm 699b
Part-time Practicum II in Educational Administration
A continuation of Adm 699a, which must be taken within two years of completing Adm 699a.
Prerequisite: Adm 699a and permission of program director.
3 Lect Hrs, 3 Credits

English (MA)

Faculty

Pamela Annas, PhD, *Indiana University* •Working Class Literature •Literary Modernism •Writing for Women

John Brereton, PhD, *Rutgers University* •Composition Theory •18th Century British Literature

Neal Bruss, PhD, *University of Michigan* •Linguistics •Composition Theory

Martha Collins, PhD, *University of Iowa* •Modern Poetry •Creative Writing

Robert Crossley, PhD, *University of Virginia* •Fantasy and Utopia •Science Fiction

Linda Dittmar, PhD, *Stanford University* •Experimental Fiction •Film

Albert Divver, PhD, *University of Michigan* •Critical Theory

Elizabeth Fay, PhD, *State University of New York at Stony Brook* •Romantic and Victorian Literature

Edwin Gittleman, PhD, *Columbia University* •Colonial and 19th Century American Literature

Judith Goleman, PhD, *University of Pittsburgh* •Theory and Practice of Composition •Critical and Cultural Studies

Robert Greene, PhD, *Harvard University* •Renaissance Literature

Leland Grove, PhD, *Harvard University* •Modern American Literature

Alan Helms, PhD, *Rutgers University* •American Poetry •Modern Poetry

Susan Horton, PhD, *Brandeis University* •Literary Theory •Dickens •Writing About Literature

Charles Knight, PhD, *University of Pennsylvania* •British Fiction •Periodical Literature

Eleanor Kutz, PhD, *Indiana University* •Composition Theory •Medieval Literature

Richard Lyons, PhD, *Princeton University* •British and American Fiction

Margaret Mansfield, PhD, *Cornell University* •Medieval Literature •History of the English Language •Professional Writing

Monica McAlpine, PhD, *University of Rochester* •Chaucer •Medieval Literature

Charles Meyer, PhD, *University of Wisconsin* •Linguistics •History of English

Shaun O'Connell, PhD, *University of Massachusetts Amherst* •Modern Fiction •Irish Literature

Thomas O'Grady, PhD, *Notre Dame University* •Irish Literature

Vincent Petronella, PhD, *University of Massachusetts Amherst* •Renaissance Literature

Sheila Post-Lauria, PhD, *University of Chicago* •American Literature

Lois Rudnick, PhD, *Brown University* •American Civilization •Immigrant Literature •Twain

Pancho Savery, PhD, *Cornell University* •Modern Drama •Black American Literature •Lawrence

Ron Schreiber, PhD, *Columbia University* •Modern Poetry •Visionary and Prophetic Literature •Gay Literature

Lloyd Schwartz, PhD, *Harvard University* •Poetry

Mary Shaner, PhD, University of Illinois •Medieval Literature •Children's Literature

George Slover, PhD, *Indiana University* •Shakespeare •Early Drama

George Smith, PhD, *University of Virginia* •Milton •Shakespeare •Computational Linguistics

Louise Smith, PhD, *University of Virginia* •Expository Writing •British Romanticism

Taylor Stoehr, PhD, *University of California at Berkeley* •Biography •American Literature

John Tobin, PhD, *University of Toronto* •Renaissance Literature •Shakespeare

The Program

One of the oldest graduate programs at UMass Boston, the program leading to the master of arts degree in English continues to grow in enrollment, diversity and reputation. Graduate students from many states and several foreign countries are currently enrolled. Some are teachers in secondary schools and two-year colleges; some are writers; some are preparing for doctoral study; some are older people with careers and families who love the study of literature and writing. Matriculated students enroll for the degree; non-degree-seeking students may be admitted for specific courses.

The degree can be completed in 4 semesters of full-time study, but many current students attend part-time. Sixteen different graduate seminars are offered each year. All are small (usually 15 students), and scheduled for late day hours, once a week, to accommodate students' work commitments. The atmosphere is informal and non-competitive, and individual academic programs can be flexibly arranged, to fit personal priorities.

Students may choose between two concentrations: one in literature, and one in composition. The concentrations are designed to overlap, so that all students may take some courses in both. Each semester's offering includes at least five seminars with an emphasis on literature, two with an emphasis on composition, and one that crosses over. Seminars on the "literary" side include major periods, genres, authors (British, American, and Irish); and special topics in ethnic literatures, literature and society, and the teaching of literature. Seminars in composition include Philosophy and the Composing Process; Practical Writing; The Teaching of Composition; Writing, the Media, and Popular Culture; Writing for the Public (professional writing); and Life-Writing. Overlapping courses include Writing About Literature; The History of the English Language; Introduction to Linguistics; and Studies in Criticism. MA students may also choose to add to their graduate degree work in the Certificate Program in Creative Writing, and some complete both the MA and the certificate program. Information about the creative writing certificate program can be found in the University's undergraduate catalog.

Degree Requirements

Requirements for the MA degree in English include the satisfactory completion of 30 credits of approved course work, completion of the language requirement, and completion of a final exercise essay or exam.

The 30 credits may be earned in graduate English seminars (at least four are required), in the Graduate English Colloquium (Engl 609), in the Final Projects (Engl 679 for composition; Engl 699 for literature), or in Independent Study (Engl 696). Some courses at the advanced undergraduate level (creative writing) or in a related field may also be approved; such approval must be arranged in advance.

Composition concentrators are required to take Engl 679 and four other seminars related to composition. Literature concentrators are required to take Engl 699 and five courses emphasizing literature or language. Either concentration may include the "overlap" courses.

By petition, up to 6 graduate credits may be transferred from another institution. Up to two courses taken at the University of Massachusetts Boston as a non-matriculated student may also be counted later toward the degree. Up to two courses taken at the University of Massachusetts Boston while still a graduating senior may also be counted, but only if the credits were beyond the number required and taken for the BA degree. No course credits may count toward more than one degree.

English

The MA candidate in English who intends to proceed to a PhD program must demonstrate a reading knowledge of one foreign language, ancient or modern. This competency may be demonstrated by achieving a score of at least 575 on the ETS Graduate School Foreign Language Test, or by achieving a grade of at least B in the second term of an intermediate undergraduate course in the language (300- or 400-level).

Students for whom English is not the native language may petition to have their proficiencies in their native languages count as satisfying this requirement.

The final exercise is intended to provide culminating evidence of the graduate student's mastery of subject matter and methodology, either in a long paper or project report, or in a comprehensive written examination of at least three hours. Concentrators in composition undertake an appropriate research project or prepare for an exam through Engl 679. Concentrators in literature may carry on preparation for a final paper or examination through Engl 699.

The literature concentrator may choose one of four final paper or examination options. Under Option A, the student submits a long paper (critical, interpretive, or pedagogical) of at least 30 pages, with the written approval of a faculty supervisor. The paper may be based on a course paper, should deal with a substantial body of material (primary and secondary), should open with a preface addressed to a general academic reader explaining the significance or value of the project, and should close with an annotated bibliography of works used.

Under Option B, the student negotiates with the English Graduate Committee a list of ten or more texts representing a topic in English or American Literature proposed by the student, and arranges a date for the written essay examination based on that list.

Under Option C, the student arranges to take a comparable exam based upon a reading list of major texts prepared by the English Graduate Committee. (Option C should be especially suitable for teachers who expect to teach general literature courses.) Options A, B and C carry three-credit final exercises.

Under option D, the final exercise carries six credits: In this case, the paper must be longer (60 pages) and more comprehensive, and the exam will be longer, and will include a longer reading list. Plans for the completion of this requirement must be made and approved in writing no later than the beginning of the semester at the close of which the student expects to receive the degree.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9 of this publication.

The English Graduate Committee will recommend full admission to those applicants who present evidence of their ability and appropriate preparation to do graduate work with distinction. Such evidence must include

1. A distinguished undergraduate transcript with, normally, an average of at least 3.0 in advanced undergraduate English courses. (An undergraduate major in English is preferred, but some of our successful applicants have majored in other fields while completing additional advanced course work—at least six courses—in English and American literature and in writing. Occasionally the committee recommends additional undergraduate course work prior to full admission.)
2. Substantive and detailed recommendations from former teachers familiar with the applicant's most recent academic work.
3. An essay of at least 1200 words by the applicant concerning his or her intellectual, professional, and personal reasons for desiring to pursue the advanced study of English. The essay should give some specific account of the applicant's past studies and projects, and an explanation of the applicant's major fields or subjects of interest in the field. This essay is of major importance and is evaluated as a demonstration of ability in writing and thinking about literary issues. It constitutes the second part of the statement of interests and intent described in the "Graduate Admissions Application Instructions" at the back of this publication (see the section on additional instructions for all applicants). Samples of past writing are sometimes also requested.
4. A critical essay written in the last four years, at least five to seven pages in length, demonstrating the applicant's ability to read and write critically about literary texts.
5. Graduate Record Examination (GRE) scores, (Verbal, Quantitative, and Literature in English) are not required but are recommended, especially in cases where the undergraduate record is unusual or uneven.

Students who appear not quite to meet the above requirements are occasionally offered provisional admission, allowed to enroll in a course or two for a semester, and then reviewed for full admission. Such students may also be allowed to enroll on a trial basis as non-degree-seeking students.

The department encourages applications from in-service secondary English teachers.

Graduate assistantships in teaching or tutoring or research or program administration are available. For information before applying, contact the program director.

Course Information

Graduate courses in English are open to regularly matriculated (degree-seeking) MA candidates in English, with the approval of the student's advisor, and to others (graduate students in other programs, non-degree-seeking students, and qualified seniors) with approval of the Graduate Program Director in English.

English graduate seminars award 3 credits. Eight different seminars drawn from the following list are scheduled for each semester. For the English Graduate Program Handbook and the semi-annual departmental publications on current and upcoming offerings, write to: Graduate Program Director, Department of English, UMass Boston, 100 Morrissey Boulevard, Boston, MA 02125-3393.

Courses

Engl 600
Studies in Criticism
Study of the nature and function of literature, the terms and methods of analysis and evaluation of literature, and the various approaches possible in the criticism of literature.
3 Credits
Mr Bruss, Mr Divver

Engl 601
Studies in Poetry
This course approaches poetry from a number of angles, including—and emphasizing—the writing of it. Experienced poets are encouraged to enroll, but students need not have written poetry before: the point of the course is to learn more about how poetry "works" by experimenting with the techniques used by poets we read and discuss in class. To this end, a large portion of the course focuses on matters of form; there are also units on diction, image/metaphor/symbol, narrative poetry, "political" poetry, and other topics. Historical discussion of some of these subjects occurs from time to time. While all students are required to write some poetry for the course, no one is penalized for an inherent lack of poetic talent. Some assignments offer a choice between a poetic and a critical response to a topic, and the final project for the course may be either a long critical paper or a substantial collection of poems written and revised during the semester.
3 Credits
Ms Collins

English

Engl 602
Studies in the Novel
Studies in the nature of prose fiction and its major kinds; special topics in the history and sociology of narrative fiction, such as the working class novel, the short story, the prose romance, the historical novel; and studies of representative British and American types in international contexts.
3 Credits
Ms Annas, Mr Crossley, Mr Knight

Engl 603
Studies in Drama
A course for those who want a broad view of the sweep of Western drama, offering a study of the art of drama as it has evolved from classical Greece. Representative plays are drawn from various periods (medieval, Renaissance, Augustan, romantic, and modern) and from the major modes (tragedy, comedy, farce, realism, expressionism, and the absurdist and social theater). Selected critical works are also considered.
3 Credits
Mr Petronella, Mr Savery

Engl 604
Studies in Satire
An exploration of individual works of satire and critical theories about the mode: pre-modern and modern selections from Swift, Pope, Shaw, Waugh, F O'Connor, N West, Eliot and others.
3 Credits
Mr Knight

Engl 608
Introduction to Critical and Research Methods
This course introduces the beginning graduate student to research strategies, provides an introduction to bibliographic, textual, and a range of critical methods, contrasting, for instance, the historical method with new historicism. The aim is to explore the kinds of interpretations each critical method enables and disenables. This course also explores both literature and literary scholarship and teaching as material practices, and explores the consequences of different ways of conceiving of those practices.
Prerequisite: Admission as a regular MA candidate.
3 Credits
Ms Horton

Engl 609
Graduate English Colloquium
This course meets in public afternoon colloquia every third week throughout the year and in tutorials during intervening weeks. Colloquia and tutorials are led by members of the graduate faculty, and concern major texts of English and American literature. The course increases students' familiarity with a variety of forms and periods, introduces problems of literary history, and demonstrates various current approaches to advanced literary study. Texts are selected annually by the graduate faculty and approved by the graduate committee. The course may be taken in either semester sequence, beginning in fall or spring. It yields three credits for the year, grades to be determined by assigned faculty tutors, in consultation with the colloquium coordinator.
Prerequisite: Admission as a regular MA candidate.
3 Credits

Engl 610
The Teaching of Composition
This course defines the role of composition in the English curriculum in both college and secondary schools; develops a philosophy of language as a foundation for a method of composing; studies psychological and linguistic aspects of the composing process. This course is offered once each year.
3 Credits
Mr Brereton, Ms Goleman, Ms Smith

Engl 611
The Teaching of Literature
A seminar and workshop in theories and strategies of the teaching of literature in school and college. The class observes and analyzes sample presentations involving different literary kinds, and evaluates them in the context of the aims of liberal education. The course serves teachers, prospective teachers, and non-teachers who seek an introduction to literature from pedagogical points of view.
3 Credits
Mr Crossley, Ms McAlpine, Mr Savery, Mr Stoehr

Engl 612
The Teaching of Shakespeare
This course combines intensive study of a few selected plays and poems with approaches to the teaching of Shakespeare, approaches which emphasize the speaking, hearing, and acting of text and which address the linguistic and cultural obstacles to reading a sixteenth century British writer. Portions of the course are devoted to workshops affording opportunities to practice these approaches and to see them practiced.
3 Credits
Mr Slover

Engl 615
Style and the Popular Essay
An in-depth study of selected contemporary, commercial essayists as stylists, working in numerous genres within the one genre (i.e. the humorous essay, the travel essay, the personal essay, the philosophical essay); and an intensive writing workshop in which students write comparable essays and critique them in class. Topics and readings very each year. Students write a short, publishable essay every two weeks.
3 Credits
Mr Grove

Engl 616
Practical Writing
This seminar invites all serious writers of varying backgrounds to practice writing expository prose on general topics of their choice. Theoretical analysis of discourse, of language, and of composing processes provides the framework for each individual's development. The seminar addresses such topics as generating and forming ideas, organizing and clarifying the logical relations among parts, balancing assertion and evidence, choosing and changing style and tone, and practicing revision and editing. Members write constantly in and out of class, read their compositions aloud in class and receive written and oral responses, and meet often for individual and small group conferences with instructor.
3 Credits
Ms Annas, Mr Brereton

Engl 617
Writing About Literature
This is a course in the writing of literary criticism. Students read one major work of fiction and one small body of poems (perhaps Shakespeare's sonnets) in this course, and become familiar with as much of the major criticism written on these works as possible. They read historical critics, generic critics, psychoanalytic critics, structuralists, feminists, and the like. They write 8 papers (4 drafts and 4 revisions) in which they attempt to produce the kinds of literary criticism the various modes of criticism make possible.
3 Credits
Ms Horton, Ms McAlpine

English

Engl 618
Life Writing
This is a course for readers and writers of biographical forms, including autobiography. Course offerings may differ in emphasis from time to time. The course sometimes focuses on major works of autobiography, such as Franklin, Rousseau, Adams, Wright, Hellman, and Kingston. At other times the focus is on major biographies in English, from More and Roper, through Walton and Boswell, to moderns such as Strachey, Woodham-Smith, Edel, and Ellman. Other offerings focus on a few historic personalities such as Socrates, Joan, Johnson, and Gandhi, through comparative analysis of biographical materials. Substantial practice in life writing.
3 Credits
Mr Gittleman, Mr Stoehr

Engl 619
Writing For The Public
This course differs from traditional technical writing courses in that it does not stress industrial engineering writing tasks but provides students with resources to describe and evaluate writing in non-academic settings. Aside from providing practical experience in writing in the workplace, the course introduces students to ethnographic approaches to composition research. Students visit organizations where people write for the public to conduct inquiries that help them answer such questions as: What kinds of literacy demands are made on workers? How do workers perceive themselves as learners and writers? What kinds of writing technologies do writers use? Students prepare working papers describing their findings and procedures, rewriting actual documents, and reflecting on underlying theories.
3 Credits
Mr Brereton, Ms Mansfield

Engl 620
History of the English Language
Description and analysis of modern English from a linguistic perspective; attention to the relationship of linguistic analysis to literature. A survey of Old English, Middle English, early modern and 18th century English, with its stress on traditional grammar.
3 Credits
Mr Bruss, Ms Mansfield, Mr Meyer

Engl 621
Introduction to Linguistics
The course raises the question of the relationship between language and thought; and surveys the application of linguistics to the study of literature, the analysis and teaching of syntax and grammar, and the fields of psychology, sociology, and biology.
3 Credits
Mr Bruss, Ms Kutz, Mr Meyer

Engl 622
Stylistics
A study of the connection between linguistics and literature. An effort in turning linguistic information into strategies useful for interpreting novels, for describing how novels and poems get put together, for helping us learn how meaning gets made in a literary text, for talking about how a reader's responses to a text get generated out of the particular stylistic/linguistic choices a writer makes.
3 Credits
Mr Bruss, Ms Horton

Engl 623
The Nature of Narrative
This course explores a variety of ways in which modern and contemporary fiction, both English and European, departs from traditional narrative forms. While a comparative study of experimentation is our main concern, we may address philosophical, political, and psychological issues as they affect narrative form in the twentieth century.
3 Credits
Ms Dittmar, Ms Kutz

Engl 630
Chaucer
A study of Chaucer's major works in Middle English. Special attention to such considerations as Chaucer's poetic development, his relations to his sources, medieval literary theory, and the social, political, and religious backgrounds.
3 Credits
Ms McAlpine, Ms Shaner

Engl 631
Medieval to Renaissance Literature
A course in the transition from medieval to Renaissance literature. A study of the transition in prose from homiletic writings and the romances through Elyot, Ascham, and Lyly; in lyric and narrative verse from Chaucer and the Scottish Chaucerians through Sidney; and in drama from the morality and mystery plays through Hamlet.
3 Credits
Ms McAlpine, Ms Shaner

Engl 632
Early English Drama
A study of the development of form—particularly the forms of comedy and tragedy—in the drama of Shakespeare's predecessors and contemporaries. Readings of selected mystery and morality plays and of works by such playwrights as Marlowe, Kyd, Marston, Tourneur, Webster, Greene, Dekker, Jonson, Beaumont and Fletcher. One play of each kind by Shakespeare.
3 Credits
Mr Petronella, Mr Slover

Engl 633
Shakespeare
Consideration of Shakespeare's dramatic art as an art of coaching an audience (and readers) in how to respond to and understand his make-believes. Multiple plotting, recurring situation, contrasts and parallels in character and character relations (especially the use of theatricalizing characters who stage plays within the play), patterns of figurative language, repetition of visual effects—these and other such "structures" will be considered as means whereby Shakespeare coaxes and coaches the perception of his audience, shapes the participation of mind and feeling, and, especially, prepares audiences for comic or tragic outcomes.
3 Credits
Mr Petronella, Mr Slover, Mr Tobin

Engl 634
Elizabethan and Jacobean Literature
The seminar focuses attention on a select number of English Renaissance works, representing various literary genres, ranging from the age of Elizabeth through the Jacobean era into the Caroline period. Writers such as Shakespeare, Spenser, Sidney, Elizabeth I (and other woman writers), Marlowe, Jonson, Drayton, Daniel, Donne, Marvell, Webster, Marston, Middleton, Ford, Chapman, and Milton are studied in the light of (1) modern critical and scholarly approaches to Renaissance themes and styles, (2) literary manifestations of Neoplatonism, Neostoicism, and political theory, and (3) parallels with developments in the graphic arts (emblem literature, visualized mythology, and the movement toward mannerist and baroque forms). Although the seminar concentrates on a select number of texts, it also provides an overview of the English literary Renaissance and its connections with the continental Renaissance. In short, the seminar serves as both a general grounding in and a specialized study of a major literary period.
3 Credits
Mr Greene, Mr Petronella, Mr Smith

Engl 635
Metaphysical Poetry
A survey of the major English poets called "metaphysical" in their historical context: Donne, Herbert, Vaughan, Crashaw, Marvell.
3 Credits
Mr Greene, Mr Tobin

Engl 637
Milton
A study of the poetry and major prose with particular attention to Paradise Lost; Milton's style, his relations to traditional literary forms, his thematic concerns; an examination of Milton criticism.
3 Credits
Mr Greene, Mr Smith, Mr Tobin

English

Engl 639
Eighteenth Century Studies
Study of the Enlightenment in Britain, with emphasis on the major Augustan satirists—Dryden, Swift, and Pope; and on prose writers such as Defoe and Fielding, and critics such as Addison and Johnson.
3 Credits
Mr Knight

Engl 640
The Rise of the Novel
A literary and historical study of early experiments in the shaping of the new genre of the novel. Samples, ranging from the late seventeenth century to the early nineteenth, include a variety of experimental forms. Novelists include Defoe, Fielding, Richardson, Sterne, Smollett, Austen, Scott, and the "Gothics."
3 Credits
Mr Crossley, Mr Knight

Engl 641
Studies in Romanticism
A search for the meaning and importance of British romanticism in poetry, fiction, and thought, with reference to the three modes: gothic (Blake and Godwin), romantic (Byron and Scott), pastoral (Wordsworth and Austen).
3 Credits
Ms Fay

Engl 642
Victorian Literature
Studies in the careers and works of a few such major authors as Carlyle, Tennyson, Dickens, George Eliot, Ruskin, and Wilde, with brief excursions into the works of others. Major themes include the relations of art and society and the problems of faith and doubt, science and imagination.
3 Credits
Ms Fay, Ms Horton

Engl 644
Studies in Modern British Literature
The focus of the course is on the way changes in English society consequent to the First World War are reflected in British novels after the war. E M Forster's Howard's End is read as a representative novel of pre-war British society; other readings include some general works on the social and intellectual impact of the war, and several novels written between 1916 and 1930. The interests of the course are twofold: the effects the war had on the ways writers looked at their world, and the ways social assumptions and attitudes get reflected in fiction.
3 Credits
Mr Lyons

Engl 645
Modern Poetry
A study of the major figures and currents in modern British and American poetry.
3 Credits
Ms Collins

Engl 646
Literature and Society
A study of literature with special reference to its social and historical circumstances, and of the theoretical questions raised by such a perspective.
3 Credits
Ms Annas, Mr Crossley, Ms Dittmar, Ms Goleman

Engl 647
Irish Literary Revivals
A study of Irish literature from 1890 to the present. The writings of the "Irish Renaissance" in part inspired the Rising of 1916, then responded to its effects. Recent Irish writings bear similar relations to the renewed "Troubles" in Northern Ireland. The course examines the relationships between literature and politics in the times of Yeats and Heaney. Other writers discussed: A Gregory, JM Synge, S O'Casey, J Joyce, F O'Connor, S O'Faolain, P Kavanagh, R Murphy, T Kinsella, J Montague, S Deane, D Mahon, B Friel, B Moore, J McGahern, B Kiely, E O'Brien.
3 Credits
Mr O'Connell, Mr O'Grady

Engl 648
Modernism in Literature
This is a course not in modern literature but in modernist literature—not Frost and Fitzgerald, but Joyce, Pound, Eliot, Stein, Woolf, Hemingway, Faulkner, Williams, and Stevens—writers who are to literature what Picasso, Stravinsky, and Corbusier are to painting, music and architecture. We discuss some modernist art and architecture (Cubism, Fauvism, the Bauhaus) by way of defining the characteristics of the modernist sensibility—its intense subjectivity, its love of the perverse, its rejection of traditional aesthetic order, its sense of radical rupture with the traditional past and of a relationship between writer and reader involving effort and conflict. "On or about December 1910," wrote Virginia Woolf, "human nature changed." That's where we begin—with the death of the old world and the birth of our own.
3 Credits
Mr Helms

Engl 650
Image of America
An examination of the way in which America has responded to the concept of the new world and the image of self and nation that has evolved.
3 Credits
Mr Gittleman

Engl 651
Colonial American Literature
This seminar closely examines texts composed by seven colonial Americans. These are women and men who—through their writings—tried to understand their contemporaries and themselves during two periods of rapid cultural change: 17th century Puritanism and 18th century Revolutionaryism. Anne Bradstreet, a first-generation Puritan, who used poetry as a way of establishing and preserving her sense of herself as a woman and as an individual. Mary Rowlandson, whose account of her life as a captive of Indians reveals a fascination with people she despised. Sarah Kemble Knight, whose difficult journey from Boston to New York in 1704 became the occasion for a witty but realistic commentary on contemporary manners and morals. Phillis Wheatley, a black slave in Boston, who liberated herself through the poems she wrote. Benjamin Franklin, whose "Speech of Polly Baker" and "The Way to Wealth" will be read for the fun of it, partly. Thomas Jefferson, who placed his draft of the Declaration of Independence in the context of his Autobiography. Hector St. John de Crevecoeur, whose literary experiments juxtapose ideals and realities, fictions and facts, in ways that force us to scrutinize our own twentieth-century values.
3 Credits
Mr Gittleman

English

Engl 652
American Romanticism
A study of critical conceptions of American romanticism. Readings include examples of critical writing and fiction by Brown, Irving, Cooper, Poe, Simms, Hawthorne and Melville, and poetry by Bryant, Poe, Longfellow, Lowell, Emerson and Whitman.
3 Credits
Mr Gittleman, Ms Post-Lauria, Mr Stoehr

Engl 653
Major American Novelists
A study of selected pairs of American novelists, considered comparatively Authors include Hawthorne, Melville, James, and others.
3 Credits

Engl 654
Faulkner
A reading of all the major fiction centered in Yoknapatawpha County, with an intensive study of selected texts.
3 Credits

Engl 655
Modern American Poetry
A study of most of the acknowledged major modern American poets and some fine poets writing today: William Carlos Williams, Robert Frost, Wallace Stevens, Langston Hughes, and possibly Ezra Pound, and some poets from among the following: HD (Hilda Doolittle), Marianne Moore, Adrienne Rich, Judy Grahn, Gwendolyn Brooks, Gary Snyder, Allen Ginsberg
3 Credits
Ms Collins, Mr Helms, Mr Savery, Mr Schreiber

Engl 656
Contemporary American Fiction
A study of the scope (times and types) and strains (types and tensions) in the post-World War II, postmodern American novel, with special attention to the persistence of realism, the insistent presence of surrealism, and the occasional combination of the two.
3 Credits
Mr O'Connell

Engl 657
The Black Presence
Study of selected literary texts of the last two hundred years by major and minor authors who wrote with a special consciousness of the significance of black people in American society
3 Credits
Mr. Gittleman

Engl 658
Regional Literature
Regional consciousness in representative works of modern American writers of the South and New England; the roles that the sense of history, the sense of place, and the response to the natural world play in the work of Southern and New England writers.
3 Credits

Engl 659
Women in Literature
Through reading fiction by American authors from the 18th to the 20th centuries, we will attempt to identify the characteristics of female characters and to understand the historical, ideological and aesthetic reasons for both the persistence and the modification of the underlying images. The influence of gender, ethnicity, geographical setting, and major literary movements such as romanticism and realism will be examined. Short stories by such authors as Washington Irving, Nathaniel Hawthorne, Herman Melville, Henry James, Sarah Orne Jewett, Alice Cary, Harriet Beecher Stowe, and Alice Walker are studied first to establish the range and variety of images. Following these comes the study of novels by such authors as Rowson, Hawthorne, Stowe, James, Wharton, Cather, Roth, Hurston, and Morrison. Some basic acquaintance with American literature is assumed.
3 Credits

Engl 661
Studies in American Literature: New York, New York
The city of New York, as viewed by American authors both past and present, is the focus of this course. Close attention is paid to the rich manner of portrayal of this most potent American city, as well as to the role of New York as a destiny shaper in the lives of characters in both fiction and poetry. All areas of the city are treated, from Brooklyn to the Upper East Side. Authors include Whitman, Stephen Crane, James, Hart Crane, and several contemporary novelists.
Prerequisite. Admission to English MA Program or permission of graduate program director
3 Credits
Mr Grove

Engl 662
Modern Black Writers
The 250-year-old history of black (North) American literature has sometimes converged with mainstream American literature but more often it has been a separate and distinct tradition. From the early slave narratives to contemporary texts, the tradition of letters among black Americans has arisen out of certain unique imperatives: the need to create a self in a world that tried to diminish that self; the search for political freedom and power, the sense of connectedness to a community. This course considers the origins of this tradition in the slave narratives of Frederick Douglass and Linda Brent; its development in the fiction of early 20th century writers like Chesnutt, Dunbar, DuBois, and Harper; its growth through the Harlem Renaissance; and its flowering in major contemporary writers Wright, Baldwin, Ellison, Brooks, Marshall, Morrison, and Walker. The course is also directed towards an understanding of the historical "problems" of Afro-American writers; the black writer versus the white audience; the aesthetic versus the protest tradition; the sense of "double consciousness" in black writers: male domination of the Afro-American canon. To address the issue of women in the canon, we will study these texts in pairs, one by a woman writer and one by a man, to determine how the traditional courses, historical problems, and narrative strategies of the Afro-American tradition have until recently denied women an equal place in that tradition.
3 Credits
Mr Savery

Engl 670
Philosophy and the Composing Process
Current rhetorical theory emphasizing the process of composing has developed several models which are nevertheless linear (pre-writing, writing, re-writing is the most popular). But writers and teachers of writing need ways of apprehending the all-at-onceness of composition. This seminar offers opportunities to develop philosophical perspectives on perception and forming; language and the making of meaning; interpretation in reading and teaching. The course explores the pedagogical and practical implications of a broad range of theories of language and knowing by means of experimental writing and by the study of essays, letters, talks, and other materials by scientists, artists, and philosophers. Students choosing to concentrate in composition for the English MA are required to take this course at or near the start of their programs. This course is offered once each year
3 Credits
Mr Bruss

English

Engl 671
The History of Children's Literature
This course provides an overview of the field of children's literature and its development. The subject matter is approached with both critical and scholarly attitudes, and works are examined in historical and cultural contexts. Topics and texts include myth, folk, and fairy tale; children's books from the Middle Ages and Renaissance, through materials of colonial America, the nineteenth-century moralists and fantasists, to modern classics, with consideration as well of critical theories and questions of pedagogy.
Prerequisite: Admission to the English MA Program or permission of the English Graduate program director.
3 Credits
Ms Shaner

Engl 678
Critical Theory and Classical Prose
This course studies a corpus of seventeenth, eighteenth and nineteenth-century prose texts in the light of rhetorical, critical, and linguistic theory. It is particularly concerned with three issues: (1) how expository prose can be perceived as art, (2) how the literary nature of that prose manifests shifts in thought from Bacon to Carlyle, and (3) how both that prose and those shifts are related to various historical factors in the production of texts.
3 Credits

Engl 679
Final Projects in Composition
This course provides a structure for students working toward completion of the final exercise requirement of the English MA (Composition), and supplements work done in regular seminars. Biweekly workshops (for paper-writers and for examination writers), alternate with biweekly tutorial conferences with individual faculty supervisors. Paper plans and drafts are studied and critiqued; examination materials and sample questions are analyzed. Grades for the course are determined on the basis of the final paper or examination by graduate faculty readers in consultation with supervisors and the workshop director (the program director in English). To count toward the degree, the course must be completed with a grade of B or better.
Prerequisites: English MA candidacy and completion of at least four English graduate courses with satisfactory grades.
3-6 Credits

Engl 691
New Approaches to Medieval Literature
A study of revolutionary modern critical thought on medieval literature, such as the Beowulf, Chaucer's Troilus, and medieval drama. The course examines medieval literary and critical theory, the "historical" approach of 19th century critics, and the seminal essays and books of 20th century scholars.
3 Credits
Ms McAlpine, Ms Shaner

Engl 692
Problems in Modern Criticism
An introduction to some important modern critics: TS Eliot, IA Richards, Northrop Frye, Harold Bloom, Freud, DH Lawrence, Kenneth Burke, George Lukacs, Walter Benjamin, Sartre, Raymond Williams, and perhaps Blanchard, Blanchot, or Derrida. The emphasis is on some problems these critics face: defining their function, choosing a method, adopting an epistemology, setting formal aims. The course considers how the three "schools" these critics represent (the aesthetic, the synthetic, and the radical) offer varying solutions to these problems.
3 Credits
Mr Divver, Ms Fay, Ms Horton

Engl 696
Independent Study
A comprehensive study of a particular area of literature, a particular author, or other appropriate topic. Consultation with the director of graduate studies is mandatory. Applications or outlines of study must be submitted at the end of the semester previous to the one in which the study is to take place. Approval by graduate committee is required.
1 to 5 Credits

Engl 697
Special Topics in Literature and Composition
Experimental new graduate seminars on special subjects may be offered once from time to time under this heading. Topics are announced annually.
3 Credits

Engl 699
Final Projects in Literature
This course provides a structure for students working toward completion of the final exercise requirement of the English MA (literature), and supplements work done in regular seminars. Bi-weekly workshops (for paper-writers and for examination writers), alternate with biweekly tutorial conferences with individual faculty supervisors. Paper plans and drafts are studied and critiqued; examination materials and sample questions are analyzed. Grades for the course are determined on the basis of the final paper or examination by graduate faculty readers in consultation with supervisors and the workshop director (the graduate program director). To count toward the degree, the course must be completed with a grade of B or better.
Prerequisites: English MA candidacy and completion of at least four English graduate courses with satisfactory grades.
3-6 Credits

Environmental Sciences (PhD, MS)

Environmental Sciences PhD Track
Environmental Biology PhD Track
Environmental Sciences MS Program

Faculty

Jack H Archer, JD, *University of California*, LLM, *University of Washington* •Law and Marine Affairs

Robert E Bowen, PhD, *University of Southern California* •Environmental Policy and Management

Robert F Chen, PhD, *University of California, San Diego* •Organic Geochemistry/Marine Organic Chemistry

Joseph J Cooney, PhD, *Syracuse University* •Microbial Physiology and Ecology

John W Farrington, PhD, *University of Rhode Island* •Organic Geochemistry

Eugene D Gallagher, PhD, *University of Washington* •Benthic Ecology •Polychaete Biology •Succession •Serology •Predator-Prey Relationships

George B Gardner, PhD, *University of Washington* •Physical Oceanography

William E Robinson, PhD, *Northeastern University* •Aquatic Toxicology

Michael P Shiaris (Biology Department), PhD, *University of Tennessee* •Microbial Ecology •Environmental Microbiology

David G Terkla, PhD, *University of California at Berkeley* •Environmental and Resource Economics

Jefferson T Turner, PhD, *Texas A & M University* •Zooplankton

Hans van Willigen (Chemistry Department), PhD, *University of Amsterdam* •Spectroscopic Studies of Photochemical Processes of Environmental Relevance

Tracy A Villareal, PhD, *University of Rhode Island*, Phytoplankton •Ecology

Gordon Wallace, PhD, *University of Rhode Island* •Aquatic and Atmospheric Chemistry

Zong-Guo Xia (Geography Department), PhD, *City University of New York* •Physical Geography •Remote Sensing •Geographic Information Systems

Meixun Zhao, PhD, *University of California, San Diego* •Organic Geochemistry •Chemical Oceanography

Programs and Facilities

The multidisciplinary doctoral program in environmental sciences at the University of Massachusetts Boston trains individuals for leadership roles as environmental scientists in the public and private sectors. Students prepare for careers in industry, government agencies, health related fields, and university teaching and research. The program emphasizes research and training in urban harbors and coastlines. It offers advanced course work, research, and other training in a broad spectrum of environmental problems in both the laboratory and the field.

An environmental biology track within the doctoral program is administered by the Biology Department. For biologists with an environmental perspective, the track offers preparation for leadership roles in industry, government, and academia. In the multidisciplinary spirit of the Environmental Sciences Program, the curriculum focuses on addressing environmental issues through a diversity of specializations within biology.

The master's program offers concentrations in applied marine ecology, aquatic chemistry, aquatic toxicology, environmental microbiology, environmental policy and law, and physical oceanography. Students in the master's program may choose either a thesis or a non-thesis option.

The campus is located on Boston Harbor within easy commuting distance of the residential areas of metropolitan Boston. Near the campus are island systems, protected bays, exposed open ocean areas and Georges Bank. The University's field stations in Gloucester and on Nantucket Island provide access to additional marine, aquatic, wetland, and terrestrial ecosystems.

Research facilities include modern, well-equipped laboratories, support facilities, the resources of the Healey Library's science collection, computing facilities, and specialized equipment reflecting the research interests of the faculty.

Degree Requirements

The PhD in Environmental Sciences

Please see the general statement of degree requirements for PhD programs on page 32.

Formal course work includes a required core curriculum and a specialty area. Core courses include courses in statistics, scientific writing, two courses in the area of environmental policy/administration/management, and any two of the following three courses: Biological Oceanographic Processes (EnvSci 630); Chemistry of Natural Waters (EnvSci 640); Physical Oceanography (EnvSci 650). In addition, about thirty hours of course work are usually necessary to provide thorough grounding in the student's area of specialization. At present these areas of concentration include biotechnology, cellular and organismal physiology, the chemistry of aquatic systems, ecology, environmental microbiology, environmental physiology/toxicology, environmental policy and administration, estuarine physics, and population and environmental biology.

Each student's program of study and dissertation research is guided by a graduate committee. No later than the end of his or her second semester in the program, the student selects a major professor, who will serve as chair of this committee. The major professor and the student together select two additional faculty members to complete the committee.

No later than the end of the third semester, the student meets with the committee to formulate his or her program of study. This plan will include the specification of areas for which the student will be responsible on the comprehensive examination; a written dissertation proposal; and, if considered necessary by the committee, a computer language or foreign language requirement.

No later than the sixth semester, the committee administers the comprehensive written and oral examination, which tests intellectual maturity and competence both in the broad area of environmental sciences and in the student's area of specialization. In order to advance to the oral portion of the examination, the student must perform satisfactorily on the written portion. A student who fails the comprehensive examination may, at the committee's discretion, be permitted a second and final examination.

The student who successfully completes the comprehensive examination becomes a candidate for the PhD degree, and is thus required to present and defend a scholarly dissertation based on original research. The student's dissertation committee consists of at least five members, one of whom will be designated by the dean of Graduate Studies as his or her representative and who will be from outside the Environmental Sciences Program. The student's major professor will chair the committee.

Environmental Sciences

Dissertation research may be done in the laboratory or in the field, or may be carried out in part during residency with an appropriate private business or governmental agency.

If the presentation and successful defense of the dissertation do not take place within five years of admission to candidacy, the candidate must repeat the comprehensive examination. Please see the general statement on time limits and leaves of absence.

The adequacy of each student's progress toward the degree will be assessed at least once a year. Until the student's graduate committee is formed, this assessment is made by the program director in consultation with the faculty.

The student's committee, when selected, assumes the responsibility for the ongoing assessment of the student's program.

Criteria for adequate progress include performance in courses and seminar presentations (starting in the second year, each student presents one departmental seminar per year); and substantive progress in selecting/conducting doctoral dissertation research. Students are expected to maintain a B average in courses and, normally, two grades of C or one grade of F will result in expulsion from the program. The student must have a B (3.0) average, or better, at the time of the comprehensive examination.

The PhD in Environmental Sciences/ Environmental Biology

Please see the general statement of degree requirements for PhD programs on page 32. Complete information on the environmental biology track can be found in the Biology section of this publication on page 46.

The MS in Environmental Sciences

Please see the general statement of degree requirements for master's degree programs on page 31. The MS program requires 30 credit hours. All students take core courses in writing and environmental policy, and additional courses specific to their individual areas of concentration. Studies in three of these areas—applied marine ecology, aquatic toxicology, and environmental microbiology—are jointly administered by the Environmental Sciences Program and the Biology Department.

Each student is assigned a three-member advising committee responsible for insuring that he or she fulfills the program requirements and those of the Office of Graduate Studies.

Students choosing to write a thesis are assigned to a thesis advisor; they enroll either in EnvSci 699 or Biol 699 (Thesis Research). Students choosing the non-thesis option enroll in EnvSci 698 or Biol 698 (Projects in Environmental Sciences, or Projects in Biology).

Students choosing the thesis option must present and defend a thesis based on their research. Students selecting the non-thesis option must make an oral presentation based on their project.

Criteria for adequate progress include performance in courses, and seminar presentations (starting in the second year, each student presents one departmental seminar per year). Students are expected to maintain a B average in courses and, normally, two grades of C or one grade of F will result in expulsion from the program.

Admission Requirements

Please see the general statement of admission requirements for all programs on page 9 of this publication.

The graduate admissions committees for environmental sciences and for environmental biology recommend admissions on the basis of the completed application, official transcripts, Graduate Record Examination scores (aptitude tests only) and letters of recommendation. It is strongly recommended that applicants required to take the TOEFL exam attain scores of at least 600.

A BS or BA degree is required for admission, with a major in the natural, physical, or social sciences, or in mathematics. Candidates who have completed a master's degree are particularly welcome in the doctoral program.

Minimum prerequisites for admission to the master's or doctoral program include completion of at least one year of each of the following: college level mathematics (including calculus), chemistry, physics, biology, and social sciences. Additional course work in physics and/or the social sciences is strongly recommended.

At the discretion of the graduate admissions committee, and depending on the area of concentration an applicant chooses, any academic deficiencies at the undergraduate level may need to be made up before the applicant is admitted to either the master's or the doctoral program. After admission, the student's advisory or dissertation committee may also require that academic deficiencies be remedied. The stated interest of a prospective student must coincide to an acceptable degree with the faculty specialties represented within the program.

To assure applicants of full and timely consideration, completed applications should normally be received by January 21 for the fall semester and by October 15th for the spring semester; however, applications received after those dates may be considered. Notification of admission is made as soon as possible. In general, students who have been admitted will be notified of assistantship awards shortly thereafter.

Course Information

Graduate courses in the Environmental Sciences Program are open to regularly matriculated students in the program, and to others with permission of individual course instructors.

In addition to the courses listed below as offered by the program, students in environmental sciences may take graduate courses and certain undergraduate courses in biology, chemistry, economics, mathematics, and physics, as part of their program of study.

Courses

EnvSci 601
Introduction to Applied Statistics
This course provides graduate students in the sciences with an intensive introduction to applied statistics. Topics include descriptive statistics, probability, non-parametric methods, estimation methods, hypothesis testing, correlation and linear regression, simulation, and robustness considerations. Calculations will be done using hand-held calculators and the Minitab Statistical Computer Software. (Course offered in the fall only.)
Prerequisites: Graduate standing or permission of instructor
3 Lect Hrs, 3 Credits

EnvSci 611
Applied Statistics
This course is designed to prepare the student to design and analyze experiments and field studies using ANOVA (Analysis of Variance) and regression techniques. Calculations are performed using hand-held calculators and the SAS Statistical Computer Software. (Course offered in the spring only.)
Prerequisites: EnvSci 601 or equivalent, or permission of instructor.
3 Lect Hrs, 3 Credits

EnvSci 612
Multivariate Statistics
Introduction to multivariate statistical methods. Topics include regression analysis and various classification techniques. Theoretical foundations are discussed, but the emphasis is on applications. Students make use of a computer statistics package. (Course not offered 1995-1996.)
Prerequisite: EnvSci 611 or equivalent, or permission of instructor.
3 Lect Hrs plus independent work at the computer console, 3 Credits

EnvSci 616
Environmental Policy and Administration
Study of how solutions to environmental problems are implemented. Techniques of policy-making and administration in both public and private organizations are studied. Government and industrial administrators are brought to campus to provide insight into real world problems and solutions. (Course offered in the fall only.)
3 Lect Hrs, 3 Credits
Mr Bowen

Environmental Sciences

EnvSci 620
Introduction to Marine Phytoplankton
An introduction to the floristics, ecology and physiology of marine phytoplankton including morphological and physiological features distinguishing major phytoplankton taxa; physiological processes as they influence phytoplankton distribution and abundance; seasonal cycles and sections on toxic phytoplankton, air-sea interactions and the role of phytoplankton in global cycles are included. (Course offered in the spring only.)
Prerequisites: EnvSci 630, 640 or equivalent, or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Villareal

EnvSci 630
Biological Oceanographic Processes
The processes which govern the population dynamics of phytoplankton, zooplankton, and benthos will be studied in the context of ecological simulation modeling. Calculus recommended, but not required. (Course offered in the fall only.)
3 Lect Hrs, 3 Credits
Mr Gallagher

EnvSci 640
The Chemistry of Natural Waters
A basic description of the chemistry of natural and especially marine waters designed to lay the foundation for more advanced course work. Emphasis will be on the chemical composition of natural waters and the identification of the important chemical, physical, and biological processes controlling their composition. A case study, emphasizing the multidisciplinary nature of these processes, will be given at the end of the course. (Course offered in the spring only.)
3 Lect Hrs, 3 Credits
Mr Wallace

EnvSci 645
Analytical Techniques in Environmental Science
This course serves as a practical introduction to analytical methods and instrumentation available to the environmental scientist. Topics include 1) sampling of air, water, and sediment and in situ instrumentation (e.g. CTD and sensors); 2) extraction and separation techniques such as ultracentrifugation and ultrafiltration, and electrophoresis; 3) thin layer, gas, and liquid chromatography; 4) mass spectrometry; and 5) UV-Vis, fluorescence, NMR, and ESR spectroscopy. Emphasis is given to recent analytical developments and to instrumentation available to Environmental Science Program students. (Course offered spring term every other year; next scheduled for spring 1997.)
Prerequisites: Enrollment in the Environmental Sciences Program or permission of instructor.
Mr Chen

EnvSci 650
Physical Oceanography
This course introduces the physical processes active in the ocean environment, including coastal and estuarine regions, and investigates the connection between those processes and observed physical characteristics of the ocean. (Course offered in the fall only.)
Prerequisites: Physics or calculus, and admission to the program; or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Gardner

EnvSci 655
Estuarine Oceanography
This course considers such significant physical processes in estuaries as, for example, the variables (e.g., tidal amplitude and river flow) which determine the nature and intensity of circulation patterns and contaminant dispersal. These processes are studied both through description of representative estuaries, and by examination of the mathematical equations governing the processes. Some knowledge of calculus is required, but an extensive mathematical background is not essential. Concepts are reinforced through a class project focusing on Boston Harbor and Massachusetts Bay. (Course not offered 1995-1996.)
Prerequisite: Calculus and physics, or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Gardner

EnvSci 658 (Biol 658)
Environmental Physiology
A discussion course exploring in detail the mechanisms by which organisms adapt to their environment, and highlighting the interplay among cellular function, physiological function, and the ecology of the organism. (Course offered spring term every other year; next scheduled for spring 1997.)
Prerequisites: Biol 211 or 213, and 371; or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Robinson

EnvSci 660
Aquatic Toxicology
This course investigates the properties, fate, and effects of toxicants in the aquatic environment. Emphasis is placed on bioavailability and on the effects of pollutants on marine organisms. (Course offered in the fall only.)
Prerequisites: Biol 211 and Chem 254; or equivalents; or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Robinson

EnvSci 670
Environmental Economics
This course is designed for those students in the program who have a minimal background in economics. It focuses on the use of economic analysis as a tool for helping to resolve environmental policy problems. Discussion includes such topics as benefit-cost analysis, the taxation and regulation of polluters, fisheries management, and the analysis of current government policies directed at the regulation and reduction of air, water, and solid waste pollution. (Course offered spring term every other year; next scheduled for spring 1996.)
Prerequisites: College calculus; enrollment in the Environmental Sciences Program or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Terkla

EnvSci 675
Marine Resource Economics
This course is designed for graduate students in environmental sciences with an interest in economics. It explores the use of economic analysis in helping to solve natural resource problems of the coastal zone and ocean. In particular, it focuses on such topics as fisheries management, resource scarcity, the concept of economic efficiency, measuring the benefits of natural resources, on-shore coastal development, and depletable, recyclable, and non-recyclable resources. (Course offered spring term every other year; next scheduled for spring 1997.)
Prerequisite: Permission of instructor.
3 Lect Hrs, 3 Credits
Mr Terkla

EnvSci 680
Coastal and Ocean Law
An examination of the laws to preserve, develop and manage coastal ocean resources and space. Judicial decisions interpreting and applying these laws are a major focus, although attention is also given to the coastal and ocean policies embodied in them and the process by which these policies have been established. (Course offered in the fall only.)
Prerequisites: Graduate standing or permission of instructor
3 Lect Hrs, 3 Credits
Mr Archer

EnvSci 697
Special Topics in Environmental Sciences
Provides an opportunity for presentation of particularly timely lecture/laboratory/field material which does not fall under the purview of any other course.
Prerequisite: Permission of instructor.
Hrs by arrangement, 1-3 Credits

Environmental Sciences

EnvSci 698
Projects in Environmental Sciences
A substantial written report based on library, laboratory, or field research which involves an original project. Up to 6 credits from this course may be applied to the MS degree, over more than one semester. Please note: This course is required for all master's-level students taking the non-thesis option; it is not open to doctoral students. Students cannot take both 698 and 699.
Prerequisite: Completion of 9 graduate credits in the Environmental Sciences MS Program, or permission of graduate program director.
Hrs by arrangement, 1-6 Credits

EnvSci 699
Thesis Research
Research conducted under faculty supervision which leads to the presentation of a master's thesis. Up to 10 credits from this course may be applied to the MS degree, over more than one semester. Please note: This course is required for all master's-level students taking the thesis option; it is not open to doctoral students. Students cannot take both 698 and 699.
Prerequisite: Completion of 9 graduate credits in the Environmental Sciences MS Program, or permission of instructor.
Hrs by arrangement, 1-10 Credits

EnvSci 710
Environmental Biogeochemistry
This course identifies and defines the influence of biota on the geochemical cycling of inorganic and organic substances through the atmosphere, hydrosphere, and lithosphere. Particular emphasis is given to contemporary research in the biogeochemistry of carbon, sulfur, selected metals, and organic compounds of natural and anthropogenic origin. Calculus and biochemistry are recommended, but not required. (Course offered fall term every other year; next scheduled for fall 1996.)
Prerequisites: Chem 253 and 254 or equivalent; and enrollment in the Environmental Sciences Program, or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Chen

EnvSci 715
Isotope Geochemistry
This course explores the use of stable and radioactive isotopes in delineating biogeochemical and geochemical processes in the environment. Emphasis is given to recent advances in the field. Specific topics to be addressed include geochronology, paleothermometry, use of isotopes as tracers, and analytical methods. (Course offered fall term every other year; next scheduled for fall 1997.)
Prerequisites: EnvSci 630, 640, and 650; or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Wallace

EnvSci 716
Scientific and Technical Information and the Policy Process
This course considers the role of scientific and technical information in the policy-making process. Questions of the impact of information on policy evaluation, the role of scientists, and research agenda setting are all discussed. (Course offered in the spring only.)
3 Lect Hrs, 3 Credits
Mr Bowen

EnvSci 718
Environmental Law and Policy: Federal Agencies, Courts, and Congress
This course surveys three major areas of federal involvement in environmental law and policy. The first is federal environmental and resource management programs and laws, such as the Clean Water, Ocean Dumping, Superfund, Resource Conservation and Recovery, Coastal Zone Management, and Fishery Conservation and Management Acts. The second is the role of the federal agencies and courts in implementing and overseeing federal laws; and the third is the legislative functions of the US Congress in debating, enacting, and monitoring national policy. Emphasis is placed on coastal and marine environmental problems and issues. (Course offered in the spring only.)
Prerequisite: Permission of instructor.
3 Lect Hrs, 3 Credits
Mr Archer

EnvSci 720
Benthic Boundary Layer Process
An interdisciplinary view of the benthos in freshwater, estuarine, and marine ecosystems. Special attention is paid to the interactions between physical, chemical, and geological processes and benthic populations. Calculus, EnvSci 630, EnvSci 640 recommended. (Course offered spring term every other year; next scheduled for spring 1997.)
3 Lect Hrs, 3 Credits
Mr Gallagher

EnvSci 726
Coastal Zone Management
This course introduces and evaluates the legal, political, and social factors that most directly affect the management of coastal area resources. Both conceptual and case-oriented literature are reviewed, in order to familiarize the student with the evolution and practice of coastal zone management generally in the U.S., and particularly in the Commonwealth of Massachusetts. (Course not offered 1995-1996.)
3 Lect Hrs, 3 Credits
Mr Bowen

EnvSci 730
Scientific Writing
This course, designed for second-year graduate students, is intended to develop skills in the written presentation of environmental scientific information. It covers poster presentation, manuscript preparation, computer and other graphics techniques, research proposals, environmental impact statements, and the preparation of professional résumés. (Course not offered 1995-1996.)
Prerequisite: Completion of 12 hours of graduate course work in the program, or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Cooney

EnvSci 750
Organic Geochemistry
This course examines the production and cycling of organic matter at the earth's surface. Starting with the photosynthetic fixation of CO2 and the biosynthesis of a diverse array of molecules, the course traces the path of reduced carbon through the biogeosphere to incorporation in sedimentary deposits. Specific topics to be addressed include photosynthesis, biosynthesis, chemical evolution, the organic carbon cycle, diagenesis, and catagenesis: the formation of fossil fuels, and the biogeochemistry of organic compounds of environmental concern. Students are introduced to selected analytical methods used in organic geochemistry. (Course offered fall term every other year; next scheduled for fall 1997.)
Prerequisite: EnvSci 640, or EnvSci 710, or permission of instructor.
4 Lect Hrs, 3 Credits
Mr Chen

EnvSci 756
Computer Applications in Environmental Science
An introduction to the use of computers in the environmental sciences. The major emphasis of the course is on a variety of computer models of biological, chemical, and physical aspects of the marine environment. Data acquisition and analysis are also covered. Examples are drawn from the primary and the review literature in the relevant fields. (Course not offered 1995-1996.)
Prerequisites: Calculus; two 300-level science courses in student's major, or equivalent.
2 Lect Hrs, 3 Lab Hrs, 3 Credits
Mr Gardner

EnvSci 780
Seminar in Environmental Chemistry
Lectures and discussion focused on contemporary issues in environmental chemistry. (Course offered fall term every other year; next scheduled for fall 1997.)
Prerequisites: EnvSci 640 and/or permission of instructor.
3 Lect Hrs, 3 Credits
Mr Wallace, Mr Chen

Environmental Sciences

EnvSci 782
Seminar in Environmental Microbiology
Lectures and discussions focus on contemporary issues in environmental microbiology. (Course offered in the spring only.)
Prerequisites: Biol 627 or 628, or equivalent, or permission of instructor.
3 Lect/Disc Hrs, 3 Credits
Mr Cooney

EnvSci 786
Seminar in Phytoplankton Ecology
Lectures and discussions focused on contemporary issues in phytoplankton ecology, emphasizing the relationships between phytoplankton/aquatic primary production and biological/biogeochemical processes. (Course offered in the fall only.)
Prerequisites: EnvSci 630 or EnvSci 640, or permission of instructor.
3 Lect/Disc Hrs, 3 Credits
Mr Villareal

EnvSci 788
Current Issues in Toxicology
Topical and controversial issues in toxicology are the focus of this lecture/seminar course. Participants explore such concerns as dental mercury amalgam, Alar, radon, Agent Orange, electromagnetic fields, and environmental tobacco smoke. Each topic is assessed with respect to health effects and health risk, cellular mechanisms of toxicological action, route of uptake, persistence in the environment, public concern, and regulatory action. Current data on health effects is scrutinized to determine whether public concerns and regulatory actions are indeed justified. (Course offered spring term every other year; next scheduled for spring 1996.)
Prerequisites: EnvSci 660, Biol 371 and 372 and permission of instructor.
3 Lect/Disc Hrs, 3 Credits
Mr Robinson

EnvSci 791
Seminar in Environmental Sciences
Presentations and discussions of current topics in environmental sciences by students and visiting lecturers. Registration required each semester.
1 Disc Hr, 1 Credit

EnvSci 796
Independent Studies in Environmental Science
Independent laboratory and/or library studies under the direction of a faculty member.
Prerequisite: Permission of instructor and program director.
Hrs by arrangement, 1-3 Credits

EnvSci 798
Internship in Environmental Sciences
Individual student placements at a private sector or government institution in order to provide training and professional experiences not available on campus. Each placement is jointly supervised by an individual at the host agency or company and by a faculty member.
Prerequisites: Completion of 18 graduate credits.
Hrs by arrangement, 1-9 Credits

EnvSci 899
Dissertation Research
Research, conducted under faculty supervision, which leads to the presentation of a doctoral dissertation.
Hrs by arrangement, 1-6 Credits

Gerontology (PhD)

Faculty

W Andrew Achenbaum, PhD, *University of Michigan* •History (Visiting Faculty)

Scott A Bass, PhD, *University of Michigan* •Community Psychology

Robert Binstock, PhD, *Harvard University* •Government (Visiting Faculty)

Ellen A Bruce, JD, *Northeastern University* •Law

Elba Caraballo, PhD, *Brandeis University* •Social Welfare

Francis G Caro, PhD, *University of Minnesota* •Sociology

Yung-Ping Chen, PhD, *University of Washington* •Economics

Jane Cloutterbuck (Gerontology Program, College of Nursing), PhD, *Brandeis University* •Social Welfare

Dominique Ingegneri, PhD, *University of Southern California* •Sociology

Frank Porell, PhD, *Carnegie-Mellon University* •Urban and Public Affairs

Frances Portnoy (Gerontology Program, College of Nursing), PhD, *Brandeis University* •Sociology (on leave, 1995-96)

Robert Morris, DSW, *Columbia University* •Social Welfare

Barbara F Turner (CPCS), PhD, *University of Chicago* •Human Development

Robert Weiss, PhD, *University of Michigan* •Sociology

The Program and Facilities

UMass Boston's PhD Program in Gerontology is designed to prepare students for leadership roles as teachers, researchers, planners, and policy makers in this field of growing importance for both the private and the public sectors. The program's approach reflects the urban mission of the University of Massachusetts Boston. Special attention is given to the needs of the low-income elderly, and to issues of racial and cultural diversity.

The PhD Program in Gerontology will qualify a select group of skilled researchers and policy analysts to extend the frontiers of this growing field through research, teaching, or policy development; and to prepare themselves for leadership roles in our aging society. Advanced work in gerontology is interdisciplinary, bridging theories, concepts, and research methods drawn from several social sciences. The doctoral program provides a framework for assessing critical social questions and the tools for considering new responses. Because it does so, it promises its practitioners increasing significance in the marketplace of ideas and the marketplace of employment.

The curriculum of UMass Boston's PhD Program in Gerontology is designed to give graduates command of a broad body of specialized knowledge in aging and social policy, as well as the capacity to develop methodologically sound procedures to expand that base of knowledge and understanding. The program can be completed in four years: five semesters of full-time course work, one semester of combined course and dissertation work, and two semesters of full-time dissertation work.

The program's location on campus adjoins UMass Boston's Gerontology Institute. The Gerontology Institute, established by the Massachusetts Legislature, constitutes a major resource for the doctoral program. The Institute's mission is to focus attention on the economic, social, and political issues that confront the aging population. Institute activities include policy research and analysis as well as publication of the *Journal of Aging & Social Policy*. Institute research emphasizes long-term care and productive economic and social roles for the elderly. The Institute's major policy concerns include health and long-term care, economic issues, and productive aging. Older people themselves are often involved in the design and execution of its activities. Students in the program gain experience by participating in the Institute's research and policy projects.

Degree Requirements

Please see the general statement of degree requirements for doctoral programs on page 32.

Degree requirements for the Gerontology PhD Program include course work, an empirical research paper, preliminary examinations, and a doctoral dissertation.

Course work

Students in the program complete a minimum of 21 courses, totaling 69 credits, distributed as follows:

A. Five *foundation courses*, which emphasize different disciplinary approaches to aging:

   Geron 621 (Social Aspects of Aging)
   Geron 623 (Issues in Aging Policy)
   Geron 626 (Economic Issues in Aging Populations)
   Geron 628 (Psychology of Aging)
   Geron 641 (Historical and Theoretical Foundations of Gerontology)

   (Total: 15 credits)

B. Seven *research courses*, which emphasize research methods and statistics:

   Geron 601-602 (Research Methods and Experimental Design I and II)
   Geron 603-604 (Statistical Methods in the Analysis of Social Problems I and II)
   Geron 605 (Interpretation and Analysis of Social Policy Research in Gerontology)
   Geron 726 (Current National Data Bases in Gerontological Policy Research)

   and one of the following:

   Geron 609 (Qualitative Methods and Field Research) or
   Geron 701 (Advanced Statistical Methods in Gerontology) or
   Geron 732 (Demographic Methods in Aging)

   (Total: 21 credits)

C. Two *advanced gerontology policy courses*, which provide scholarly, in-depth examination of aging policy:

   Geron 724 (Public Policy in a Culturally and Racially Heterogeneous Aging Society)
   Geron 761 (Advanced Policy Analysis in Aging)

   (Total: 6 credits)

Gerontology

D. At least four elective courses at the graduate level; these may be taken in the Gerontology Program or other UMass Boston graduate programs, or at other cooperating universities.

(Total: 12 credits)

E. Geron 688 (Multidisciplinary Seminar in Aging)

(Total: 3 credits)

F. Geron 801 (Dissertation Seminar) Geron 899 (Dissertation Research).

(Total: 12 credits)

An empirical research policy paper

By the end of the fourth semester of study, students are expected to complete an empirical research policy paper, comparable to an article that would be published in a professional academic journal. The paper is to be based on the preparatory course work in research methods and statistical analysis undertaken during the first and second years of study.

In the third semester of study students enroll in Geron 724, and in the fourth semester they enroll in Geron 605. The two courses provide an opportunity to do an in-depth examination of data bases in aging, participate in a process of detailed analysis of findings, and learn how academic material is presented for scholarly review. The resulting research paper contains all the elements of a scholarly article: statement of the problem, literature review, research design or analytic framework, presentation of findings, and conclusions. Completion and acceptance of the paper by two faculty reviewers by the end of the fourth term is a prerequisite to take preliminary examinations.

Preliminary examinations

When all required courses are successfully completed, normally at the end of the fourth semester of full-time study, students are required to pass a set of preliminary examinations. Examinations are customarily given just before the beginning of the fifth semester of study. These examinations cover 1) background material in research and statistical methods, and 2) the body of knowledge covered in the foundation courses and the advanced policy courses. After passing the preliminary examinations, the student becomes a candidate for the PhD degree.

Doctoral dissertation

Students are required to complete a doctoral dissertation that reflects an original and independent scholarly contribution to the state of knowledge in the field of gerontology. A doctoral dissertation proposal may be prepared upon successful completion of the preliminary examination. Following development of a proposal, a dissertation committee is established and approved by the Dean of Graduate Studies. The dissertation is supervised by a primary advisor and a dissertation committee consisting of at least four members, one of whom must be from outside the gerontology faculty. The committee is responsible for approving the dissertation proposal, overseeing the data collection and analysis, and reviewing drafts of the dissertation. Candidates enroll in Geron 801 (Dissertation Seminar), which assists them in developing the dissertation proposal, and Geron 899 (Dissertation Research). Before the completion of a successful oral defense, the formal dissertation must be approved by the dissertation committee and the Office of Graduate Studies.

If the presentation and successful defense of the dissertation does not take place within five years of admission to candidacy, the candidate must repeat the preliminary examinations. (Please see the general statement on time limits and leaves of absence for all graduate programs on page 32 of this publication.)

The adequacy of each student's progress toward the degree is reviewed at least once a year. Until the student's dissertation committee is formed, this assessment is made by the program director in consultation with the faculty. Criteria for adequate progress include performance in courses, major papers, and preliminary examinations. Students are expected to maintain a B average in courses, and, normally, two grades of C or one grade of F will result in expulsion from the program.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9 of this publication.

Admission to the program is highly competitive: approximately six students will be enrolled each year. Admission requirements include a bachelor's degree from an accredited institution; an undergraduate grade point average of 3.00 (or equivalent) or better; general GRE scores (verbal and quantitative); transcripts of all prior academic work; three letters of recommendation; and a personal statement. Applicants in mid-career should also submit a résumé and at least one letter of recommendation from an employer among the required three. Women and members of minority groups are encouraged to apply. The admissions committee may wish to interview finalists. The deadline for receipt of applications and all supporting credentials is February 1. Decisions will be announced by the first week in April.

Graduate courses already completed will be evaluated individually for transfer credit. As a rule, unless prior course work is exactly equivalent to course work offered in the program, transfer credit will not be awarded. The maximum number of transferable credits is usually six; all work must have been completed with at least a grade of B. Please see the general statement on transfer credit for all graduate programs on page 29 of this publication.

Eligibility for Courses

Graduate courses in Gerontology are open to regularly matriculated PhD students in the program and to other graduate students with the permission of individual course instructors.

Courses

Geron 601
Research Methods and Experimental Design I
Research Methods and Experimental Design I is the first half of a two-semester sequence that provides the conceptual and practical foundations for policy research on aging. The sequence covers the methodological skills necessary for empirical dissertation research.
Prerequisite: Upper level undergraduate statistics and one laboratory or field course in the natural or social sciences.
Corequisite (required only for students enrolled in the program): Geron 603.
3 Lect Hrs, 2 Lab Hrs, 3 Credits
Mr Caro

Gerontology

Geron 602
Research Methods and Experimental Design II
A continuation of Geron 601.
Prerequisite: Geron 601, Geron 603.
Corequisite (required only for students enrolled in the program): Geron 604.
3 Lect Hrs, 2 Lab Hrs, 3 Credits
Mr Caro

Geron 603
Statistical Methods in the Analysis of Social Problems I
This course introduces students to statistics as a social science tool. It is designed to provide students with a working knowledge of descriptive statistics, the logic of statistical inference, hypothesis testing, analysis of variance, correlation, and regression. Students also learn how to use a statistical package.
Corequisite (required only for students enrolled in the program): Geron 601.
4 Lect Hrs, 2 Lab Hrs, 3 Credits
Mr Porell

Geron 604
Statistical Methods in the Analysis of Social Problems II
This course introduces students to advanced statistical procedures as social science tools. It is designed to provide students with a working knowledge of advanced statistical techniques. This course consists of two one and one-half-hour sessions and one two-hour lab each week. This is an application-oriented course covering multiple regression, path analysis, simultaneous equation methods, factor analysis, summary measures, and econometrics.
Prerequisite: Geron 603.
Corequisite (required only for students enrolled in the program): Geron 602.
4 Lect Hrs, 2 Lab Hrs, 3 Credits
Mr Porell

Geron 605
Interpretation and Analysis of Social Policy Research in Gerontology
This course undertakes the careful analysis of research findings and the examination of data through the use of secondary statistical analysis. Using the data generated in the research practicum, students participate in a process of scrutiny of research findings. After multiple analyses and examinations of findings, students examine journal publications and existing data sets In social gerontology and develop their own research papers based on this data. In addition to class time this course requires independent work at the computer console.
Prerequisites: Geron 602, 604, and 726.
3 Lect Hrs, 3 Credits
Mr Porell

Geron 609
Qualitative Methods and Field Research
This course is designed to introduce students to qualitative research methods; its specific focus is on policy research and aging. Students practice the skills needed to observe the world around us, by attending to social phenomena, descriptively and analytically. The course functions as both a seminar and a research workshop, and students learn by doing, engaging in a field work project.
Prerequisites: Geron 601, 602, 603.
3 Lect Hrs, 3 Credits

Geron 611
Health and Physical Changes in Aging
Those who provide and manage services for the elderly, or are involved in public policy and research concerning the elderly, need knowledge about the physical process of aging. This course describes the physiological changes that accompany the aging process and relates these to social and economic factors that influence health status. Discussion topics include issues of prevention, health promotion, and health maintenance; and selected disorders that affect health and independent living.
3 Lect Hrs, 3 Credits

Geron 614
Field Work in Gerontology
Those who provide and manage services for the elderly need knowledge of and experience in the network of services available for elders. This course focuses on direct health and social services provided to the elderly and their families. It examines and analyzes those services that are currently available; reviews recent research on available services; and develops strategies to build and strengthen programs designed to support the elderly and their families. Working with a preceptor, students negotiate placement within a setting that allows them to provide direct counseling and/or case management services to clients according to intervention guidelines. Placements must be approved by the faculty and will be monitored throughout the semester.
3 Practicum/Lect Hrs, 3 Credits

Geron 621
Social Aspects of Aging
This course presents a social perspective on the aging process. It considers social factors that influence aging and the nature of the integration of the aged into society, as well as the way in which population aging affects the society as a whole. The course also looks at social theories of aging, paying special attention to changing social roles, social stratification and aging, and the development of institutions for the aged. Gender, race, ethnicity, and class are discussed as social categories that influence aging and that play a role in the determination of social policy for the aged. Readings on the status, role, and culture of the aged are drawn from the literature of sociology, economics, and anthropology.
3 Lect Hrs, 3 Credits
Ms Portnoy

Geron 623
Issues in Aging Policy
This course introduces students to the development, implementation, and analysis of gerontological social policy through the examination of major policy areas. Classroom activities include sessions with guest experts in the area of aging policy invited to discuss the process of policy development. Students acquire the skills necessary for policy analysis, and study such topics as the relation between policy research and policy analysis; the role of political and ideological perspectives in the formulation of gerontological social policy; and the ways policy makers use policy analysis and research in the development of gerontological social policy.
3 Lect Hrs, 3 Credits
Ms Caraballo

Geron 626
Economic Issues in Aging Populations
This course deals with the economic issues raised by aging populations. It begins by introducing population trends and projections, and provides a primer on microeconomic and macroeconomic concepts and analyses. The course then discusses a range of economic issues, and some of the major institutions and elements in our society that play important roles in providing people with income and health security: Social Security, private pensions, private savings, public assistance, work, and retirement. Special attention is paid to problems affecting racial and ethnic minorities, women, widows, and the "old old." Emphasis is also given to the potential for productive aging and for economic relationships across generations.
3 Lect Hrs, 3 Credits
Mr Chen

Gerontology

Geron 628
Psychology of Aging
This course focuses on psychosocial processes throughout the second half of life, from middle age through the "young old" and "old old" years. It addresses both normal aging and psychopathology. Of special concern is the question of whether there are any systematic intrinsic psychological or personality changes associated with development in later life. The course also focuses on the processes used to cope with age-associated transitions ranging from the empty nest to impending death. It explores theoretical models for understanding coping and adaptation, developmental changes, and psychopathology. Other topics include clarification of the causes and nature of the most common psychopathologies, depression, and Alzheimer's disease; and the psychodynamics of institutionalization and family care of the very old.
3 Lect Hrs, 3 Credits
Ms Turner

Geron 631
Families of Later Life
This course presents an overview of gerontological research on family relations in later life. Its objective is to provide a summary of the major theories, theoretical concepts, and research findings about later life. The course addresses social policy issues, applications of family theory, and such practical implications as intervention strategies for helping older families and caregivers. Family theory and research are looked at from a multidisciplinary perspective.
3 Lect Hrs, 3 Credits
Ms Turner

Geron 641
Historical and Theoretical Foundations of Gerontology
This course examines the development of science as an evolving and changing concept. Participants study the philosophy of science and the pertinent literature relevant to the structure of the social sciences. The course explores various concepts of theory building, as a way of providing students with a framework showing how theory is developed and influenced by research, and how research is subsequently influenced by theory. The course seeks to provide students with a perspective from which they can critique gerontological theory and develop new research agendas to assist in the development of theory in this evolving field.
3 Lect Hrs, 3 Credits
Mr Achenbaum

Geron 688
Multidisciplinary Seminar in Aging
A multidisciplinary colloquium series highlighting current research and theory in gerontology. Presentations by students, faculty, and other scholars. May be taken up to three times for credit.
Hrs by arrangement, 1 Credit
Ms Portnoy

Geron 697
Special Topics in Aging Policy
This course provides an opportunity for presentation of current topics in aging policy that do not fall under the purview of any other course.
Hrs by arrangement, 1-3 Credits

Geron 698
Issues Concerning Specialized Target Populations of the Elderly
This course provides an opportunity for the presentation of current research affecting such specialized target populations of the aged as the disabled, veterans, homeless, abused, minority or ethnic groups, or those in various income categories.
3 Lect Hrs, 3 Credits

Geron 701
Advanced Statistical Methods in Gerontology
This course instructs students in advanced statistical topics and provides training in the use of corresponding computer methods. The course builds upon the statistical foundations established in Geron 601, 602, 603, 604, and 605, providing technical skills for use in the complex and specialized statistical research found in the social sciences. In addition to class time this course requires independent work at the computer.
Prerequisite: Geron 605.
3 Lect Hrs, 3 Credits
Mr Porell

Geron 721
History and Political Economy of Social Policy Toward the Elderly
In the United States public policy toward the elderly is a relatively recent phenomenon, first articulated in the 1935 landmark Social Security legislation. Participants study the history that led up to the development of Social Security and go on to use it as a context in which to examine other significant federal legislation for the aged such as Medicare and Medicaid. Particular emphasis is placed on the competing political forces that influenced the development of aging policy in the past and continue to do so. Economic, social, and health-related benefits for the aged in the United States are analyzed in comparison to those existing for other age groups in this country, and for the elderly in other industrialized nations.
3 Lect Hrs, 3 Credits
Mr Binstock

Geron 722
Social and Health Service Delivery Systems for the Elderly
This course provides an overview of the various delivery systems that provide social and medical services to the elderly. Students examine the highly fragmented delivery systems that presently exist, and explore alternative models for service delivery. The course involves a technical analysis of recent research on health care and social service reimbursement systems which consider cost containment as part of the optimal service delivery mechanism. The course seeks to acquaint graduate students with the planning models used in developing reimbursement and service delivery systems, and to explore new models that can achieve high quality service goals in a political environment.
3 Lect Hrs, 3 Credits

Geron 724
Public Policy in a Culturally and Racially Heterogeneous Aging Society
This course examines the challenges associated with public policy planning and implementation in a "graying" America that is increasingly racially and culturally heterogeneous. Aged ethnic minority populations are viewed within the sociohistorical context that has shaped their life experience and life condition. Emphasis is given to the needs, problems, and strengths of ethnic minority elders as well as to equity in their use of public benefits. The course also focuses on theoretical orientations, methodological issues, and the political considerations important for both policy decision making and program planning that take into account the spiraling diversity of the older population in an aging society.
3 Lect Hrs, 3 Credits
Ms Cloutterbuck

Geron 726
Current National Data Bases in Gerontological Policy Research
This course introduces graduate students to the current major national policy research studies under way in gerontology. Students examine in detail the design and execution of large-scale federally funded or foundation-funded research. The course emphasizes the utility and application of large data sets for social policy. Students are asked both to critique and defend the large database studies in light of the advantages and disadvantages posed by the methodology. A review of previous research examines the cost and contributions in the development of national data in terms of theoretical and scholarly insight, and the more practical applications of the data.
3 Lect Hrs, 3 Credits
Ms Ingegneri

Gerontology

Geron 732
Demographic Methods in Aging
This course provides a foundation in basic demographic methods for gerontology doctoral students. Its underlying assumption is that population aging will be the major demographic phenomenon affecting this nation's institutions over the next half century. Students develop an understanding of how demographic trends and characteristics of populations are measured; and examine the social and policy implications of major demographic trends for the United States and other countries.
Prerequisite: Geron 603 or equivalent.
Ms Ingegneri
3 Lect Hrs, 3 Credits

Geron 734
Law and Health Policy for the Elderly
This course examines the use of law in creating health policy that affects older Americans. It presents students with a brief introduction to the sources of law, to legal reasoning, and to the structure of the legal system. Cases are used to explore the impact of our legal system on issues of access, quality, and the cost of health care for older citizens. Other issues to be discussed include consent to and withdrawal of treatment.
Prerequisite: Graduate standing.
3 Lect Hrs, 3 Credits
Ms Bruce

Geron 771
Seminar in Long-Term Care
This course analyzes major public policy issues in the organization and financing of long-term care services in the United States. It examines the full spectrum of long-term care services, including both institutional and non-institutional long-term care. The course also includes systematic descriptions of the characteristics of existing interventions, reviews of policy research findings, and critical analyses of policy options.
3 Lect Hrs, 3 Credits

Geron 772
Seminar in Health Care Financing
This course analyzes historical, current, and proposed policy options in health care financing, including Medicare, health insurance and issues of provider reimbursement.
Prerequisites: Geron 623, 626.
3 Lect/Disc Hrs, 3 Credits

Geron 774
Seminar in Economic Security of the Aged
Lectures and discussion on contemporary issues in economic security for the elderly.
3 Lect/Disc Hrs, 3 Credits

Geron 779
Seminar in Productive Aging
This course provides advanced doctoral students with an opportunity to examine and critique research and scholarly discourse on the economic and social roles of older people in contemporary society. Students analyze the major positions and debates about productive aging, and review the most recent research concerning productive activities of older people. Though the primary focus is on the United States, there are also readings and discussion about other industrialized nations.
Prerequisites: Geron 621, 626, 641, and 721.
Mr Bass

Geron 791
Independent Studies in Aging Policy
Independent research under the direction of a faculty member.
Hrs by arrangement, 1-6 Credits

Geron 801
Dissertation Seminar
This course assists students in preparing the dissertation proposal, and in the design and data collection phases of the dissertation process.
Ms Ingegneri
3 Disc Hrs, 3 Credits

Geron 899
Dissertation Research
Research conducted under faculty supervision that leads to the presentation of a doctoral dissertation.
Hrs by arrangement, 1-9 Credits

History (MA)

History Track
Archival Methods Track
Historical Archaeology Track

Faculty

Feroz Ahmad, PhD, *University of London* •the Middle East •India

Lester Bartson, PhD, *Harvard University* •Ancient Archaeology and History •the History of Monarchy

Paul Bookbinder, PhD, *Brandeis University* •the History of Germany •the Holocaust •Political Violence

Thomas Buckley (Anthropology Department), PhD, *University of Chicago* •Linguistic and Cultural Anthropology and Ethnohistory

Michael Chesson, PhD, *Harvard University* •Civil War and Reconstruction •the Old South •Slavery

Jonathan M Chu, MSL, *Yale Law School*, PhD, *University of Washington* •Colonial America •the American Revolution •American Legal History

Spencer DiScala, PhD, *Columbia University* •Modern Italy •the History of Socialism •19th and 20th century Europe

Paul Faler, PhD, *University of Wisconsin* •American Social, Labor, and 19th Century History •Local History •the US since 1945

Clive Foss, PhD, *Harvard University* •Roman and Early Medieval History and Archaeology •the History of Genocide and Dictatorship

Frederick Gamst (Anthropology Department), PhD, *University of California, Berkeley* •Complex Societies •Peasants •Industrial and Organizational Ethnology

Michael Gibbons (Anthropology Department), PhD, *Yale University* •Biological Anthropology

David Hunt, PhD, *Harvard University* •French Social History •Peasant Society •Vietnam

Isongesit Ibokette, PhD, *Queen's University, Canada* •African History •African Urban Studies

Lawrence Kaplan (Biology Department), PhD, *University of Chicago* •Archaeological Botany

Esther Kingston-Mann (American Studies Program, History Department), PhD, *Johns Hopkins University* •Modern Russian Soviet and Post-Soviet History •Peasants and Issues of Economic Development •the Cold War

Barbara Luedtke (Anthropology Department), PhD, *University of Michigan* •New England Archaeology •Materials Analysis

Thomas A McMullin, PhD, *University of Wisconsin* •American Urban and Industrial History

Stephen Mrozowski (Anthropology Department), PhD, *Brown University* •Historical and Urban Archaeology

James M O'Toole, PhD, *Boston College* •Archival Methods •the History of American Religion •American Historiography

William A Percy, PhD, *Princeton University* •Medieval History •Gay History

Roger Prouty, PhD, *Columbia University* •the History of Modern England and the Empire •the History of Boston

Martin Quitt, PhD, *Washington University* •Early American History •Psychohistory

Eric Robinson, MA, *Cambridge University* •European Economic History •the History of Technology •the Viking Age

Lester A Segal, PhD, *Columbia University* •Jewish History •the History of Anti-Semitism

Marshall Shatz, PhD, *Columbia University* •Russian History •European Historiography •19th and 20th Century Europe

Timothy Sieber (Anthropology Department), PhD, *New York University* •Urban Anthropology •the Anthropology of Education •Ethnicity

Malcolm Smuts, PhD, *Princeton University* •the History of England to 1850 •Early Modern Europe

Julie Winch (Black Studies Department, History Department), PhD, *Bryn Mawr College* •Afro-American History •Maritime History

Weili Ye, PhD, *Yale University* •Modern and Traditional China •Modern Japan

Judith Zeitlin (Anthropology Department), PhD, *Yale University* •Prehistoric and Historic Archaeology •New World Colonialism

The Program

The History Department offers a master's degree in history and in the special tracks of history/archival methods and (with the Anthropology Department) history/historical archaeology.

History

The Master of Arts Program in History offers a rigorous, individually planned set of courses and supervised research and writing. Both demanding and flexible, it suits those students who intend to pursue a PhD as well as those who seek to test their capacity for graduate work. Not all students enter directly from college; many return at the beginning graduate level after long absences from school. The student body includes teachers at the secondary level who desire to improve their knowledge of the field. Students who simply wish to pursue advanced studies for their own intellectual enjoyment and development also benefit from the program's design. Graduate enrollment is small, affording the graduate student close faculty attention and support.

History/Archival Methods

The History/Archival Methods track of the History MA program combines graduate study in history with training in archives and records administration. The track prepares students for careers as archivists in the public or private sector. It is of special appeal to librarians and museum staff members who wish to develop archival skills.

History/Historical Archaeology

The History/Historical Archaeology track offers a program of study in both history and anthropology that meets the interdisciplinary rigors of historical archaeology. The program is designed for students interested in careers in cultural resource management and museums, or those seeking specialized training in historical archaeology before pursuing their doctorate. Internships available at several area museums including Old Sturbridge Village and Plimouth Plantation offer students the experience of working with museum staff. Flexibility in program design accommodates both full-time and part-time students.

Degree Requirements

The MA in History

Students in this track take 30 credit hours: seven 3-credit courses, a 3-credit thesis preparation course, and the MA thesis (6 credits). There are three required courses: Hist 600 (Research Seminar): an introduction to historical research and methods, with special attention to primary sources, usually given in American history; Hist 605 (Colloquium): an introductory course in historiography, normally given in European history, with topics varying each semester; and Hist 698 (Thesis Preparation): a course in which the student works with an advisor to develop a thesis topic and produce a formal proposal. Other courses are electives, chosen according to the student's interests. The thesis, normally undertaken after completion of course work, should be approximately 60 pages long, and based on original research. It is prepared under the guidance of an individual faculty advisor and defended before a committee of three faculty members. Students enrolled in the History track must demonstrate a reading proficiency in one foreign language—French, German, Spanish, or another judged relevant to the student's major area of interest. This requirement may be met through passing a test administered by the program.

History

The MA in History and Archival Methods

This track combines graduate study in history with education in the theory and practice of records and archives administration. Students complete 30 credit hours of work, consisting of seven courses. These include the research seminar and the graduate colloquium in history (Hist 600 and 605), together with three courses devoted particularly to archival methods. The first of these, History 670 (Introduction to Archival Methods), provides an overview of all aspects of archival work. Students then choose two additional archives courses in such areas as public records and administration, archival automation, and an archives seminar. These advanced courses include an extensive internship in which students gain hands-on experience in local archival repositories. On completion of the course work, each student also completes an archival thesis, involving research in a topic in archival science or the organization of a substantial collection of archival records. The results are presented and defended before a three-member faculty committee.

Students enrolled in the History/Archival Methods track must demonstrate a reading proficiency in one foreign language—French, German, Spanish, or another judged relevant to the student's major area of interest. This requirement may be met through passing a test administered by the program.

The MA in Historical Archaeology

Students in this track follow a two-year sequence of courses. The primary focus is New World colonization and its impact on native American society; and the subsequent development of the New World society, including urbanization and industrialization. The area focus of the program is New England; however, individual programs can be designed to accommodate other geographical interests. Special emphasis is placed on interdisciplinary analysis in historical archaeology; specialized training in environmental archaeology, archaeobotany (in conjunction with the Biology Department), and forensic osteology is available.

Requirements total 35 credits, of which 6 are for Anth 685 (the Summer Field School), and 6 for Anth 699 (Thesis Research Projects in Historical Archaeology). Required courses include the research seminar and the graduate colloquium in history (Hist 600 and 605), Anth 625 (New England Historical Archaeology), Anth 665 (Graduate Seminar in Archaeology) and Anth 675 (Cultural Theory in Anthropology).

Additional Requirements for All Students

Students may choose to pursue the master of arts degree either full or part time. In normal circumstances it is expected that all requirements for the degree will be completed by full-time students within three years of each student's first enrollment and within four years by part-time students.

Each student must pass an oral thesis defense, before being awarded the master of arts degree.

The examining committee consists of the student's thesis supervisor and two additional readers (one of whom may be from outside the History Program) to be chosen by consultation among the supervisor, the student, and the graduate program director. To pass this examination, the student must receive at least two affirmative votes. A student who fails may repeat the examination two times at intervals of not less than three months. A student who has not passed the examination within two calendar years from the date upon which it was first taken will be removed from degree candidacy, and will be readmitted only through a special petition to the History Graduate Committee. No grade below "B-" awarded to a graduate student will count toward fulfilling the requirements for a master of arts degree in history.

Admission Requirements

Please see the general statement of admission requirements for all programs on page 9 of this publication.

Applicants must submit evidence that they are able to perform graduate work at a high level of competence. Graduate Record Examination scores should be submitted if available.

Applicants interested in history and history/archival methods will normally be expected to have maintained a 3.0 cumulative average in history courses as undergraduates. Applications from persons who did not major in history as undergraduates will be considered, but such persons, if admitted, may be asked to pursue a program of reading or course work designed to remedy any deficiencies in their preparation for graduate study.

Applicants for the history/historical archaeology track will normally be expected to have maintained a 3.0 cumulative average, majoring in either anthropology, history, American civilization, or another related field. Any deficiencies in history or anthropology must be remedied by taking prerequisite undergraduate courses before taking the graduate courses in that field. These required background courses should be taken in the first year of study along with graduate courses for which students have completed the preparation.

Eligibility for Courses

Please note: Graduate courses are open to graduate students, and to undergraduates by permission of the instructor only.

History Courses

Hist 600
Research Seminar
This is the introductory course in historical research and methods. Readings draw upon diverse historical materials, with special attention to primary materials. Emphasis is given to the development of research and writing skills. It is normally taught in American history.
3 Lect Hrs, 3 Credits
Mr Faler and Staff

Hist L602 (AmSt L602)
Historical Sequence I: American Society and Political Culture: 1600-1865.
The course follows the evolution of American society and political culture from the colonial period to the Civil War. The concept "political culture," as used here, embraces institutions, public behavior, and above all, attitudes—beliefs, values, expectations, fears—regarding the distribution and exercise of political power. Two momentous events, the wars for independence and union, are major course milestones at which the development of political culture is assessed from the perspective of different social groups, including leaders, artists, writers, women, workers, and slaves. A central theme is the interplay between regional divergences and national convergences. Thematic questions running through the course are: Did a common political culture emerge? Who was included, who excluded? Was American political culture distinctive?
3 Lect Hrs, 3 Credits
Mr Quitt

Hist 605
Colloquium
This is the introductory course in historiography. A topic, varying from year to year, is treated in the light of past and present schools of historical thought. Emphasis is given to the development of analytical skills. The colloquium is normally taught in European history.
3 Lect Hrs, 3 Credits
Mr Foss, Mr Shatz, and Staff

Hist 610
American Historical Tradition
The history of American historical writing from the eighteenth century to the present. Topics include the Progressive, Consensus, New Left, New Social, and other schools of historical interpretation.
3 Lect Hrs, 3 Credits
Mr O'Toole and Staff

History

Hist 615
European Historical Tradition
The history of European historical writing from Voltaire to Toynbee, with emphasis on the historians of the nineteenth century.
3 Lect Hrs, 3 Credits
Mr Shatz and Staff

Hist 631
Fall of the Roman Empire
This course examines one of the great problems of European history and in the process surveys the entire period from the third century to the early seventh. It considers the reasons for the fall of the Roman empire, and discusses some of the explanations that have been proposed. Topics include the crisis of the third century; Diocletian and Constantine; the Germanic invasions; and the reign of Justinian. (Course not offered 1995-1997.)
3 Lect Hrs, 3 Credits
Mr Foss

Hist 632
Genocide in History
A cross-cultural survey of a widespread phenomenon, this course discusses genocide from an historical point of view. Numerous cases from different regions of the world and from ancient to modern times are analyzed with a view to defining and explaining genocide. (Course not offered 1995-1997.)
3 Lect Hrs, 3 Credits
Mr Foss

Hist 636
Weimar Germany
An examination of German life and culture under the Weimar Republic, chiefly through studies of diverse primary sources ranging from memoirs and public addresses to literature, the arts, and architecture. Each student investigates one aspect of Weimar history using the available primary source material (in translation) and delivers an oral presentation and a final major paper.
3 Lect Hrs, 3 Credits
Mr Bookbinder

Hist 646
The Early New England Town
This course uses the early history of New England towns to examine the social life of Americans from the first settlements to the American Civil War. Through the study of the town, students consider topics in social, political, legal, economic, demographic, and environmental history.
3 Lect Hrs, 3 Credits
Mr Chu

Hist 670
Introduction to Archival Methods
An introduction to archival theory and practice with emphasis on the collection, appraisal, arrangement, description, and use of manuscripts and records. Lectures and exercises emphasize the application of theoretical principles to specific records problems. The course is seen as basic instruction both for those planning archival careers and for potential users of archives. (Course offered in the fall only.)
3 Lect Hrs, 4 Credits
Mr O'Toole

Hist 671
Internship and Seminar in Archival Methods
Seminar readings and discussions consider selected advanced topics in archival management, including appraisal of records, archivist-donor relations, grant-writing, and program development and planning. Each student carries out an internship project in a local archives or manuscript repository. (Course offered in the spring only.)
Prerequisite: Hist 670.
3 Lect Hrs, 4 Credits
Mr O'Toole

Hist 675
Management of Public Records
A consideration of the special problems of managing collections of modern public records. Topics include the nature and the kinds of records created by federal, state, and local governments; their appraisal, use, arrangement, and disposition; the impact of the political environment on archives; privacy and other legal questions; automated records. In addition to readings and discussions, students complete a project in a local public archives. (Course offered in the fall only.)
Prerequisite: Hist 670.
3 Lect Hrs, 4 Credits
Mr O'Toole

Hist 676
Institutional Archives
An introduction to the nature of archives in such institutional settings as business firms, law firms, hospitals, religious organizations, and universities. Topics include basic organizational studies; the establishment and the organizational placement of archives; the historical and administrative uses of archives; copyright and access problems; and archives for institutions whose main focus is non-archival. (Course not offered 1995-1997.)
Prerequisite: Hist 670.
3 Lect Hrs, 4 Credits
Mr O'Toole

Hist 681
Topics in European History
Examinations of important themes in European political, social, cultural and intellectual history. Topics will vary.
3 Lect Hrs, 3 Credits

Hist 682
Topics in American History
Examinations of important themes in American political, social, cultural, and intellectual history. Topics will vary.
3 Lect Hrs, 3 Credits

Hist 696
Independent Study
Advanced course of independent readings under the guidance, and subject to the examination, of the instructor. Areas and topics according to student need. May be taken only once.
Prerequisite: Permission of graduate program director.
Hrs by arrangement, 3 Credits

Hist 698
Thesis Preparation
This is a one-semester supervised individual course to help students develop a viable thesis topic. Subjects will vary according to the student's interest and will include extensive guided reading.
3 Lect Hrs, 3 Credits

Hist 699
Master of Arts Thesis
Under the supervision of the appointed advisor. All topics must be previously approved by the program's graduate committee. The thesis will be defended before a committee of three faculty members who will also judge its suitability as partial fulfillment of the requirements for the master of arts degree.
Hrs by arrangement, 6 Credits

History

Anthropology Courses

Anth 615
Public Archaeology
An examination of cultural resource management in New England and the United States. Includes the significance of state and federal environmental and historic preservation legislation, and the implementation of these laws from drafting proposals and the granting of contracts to the collection of data and its analysis for recommendations to mitigate the impact of construction on archaeological sites. Students learn the processes of national register nomination, problem-oriented proposal and report writing, and calculation of budget estimates for proposed work. (Course next offered fall 1996.)
Prerequisite: Anth 241 or equivalent, or expertise in contract archaeology.
3 Lect Hrs, 4 Credits
Mr Mrozowski

Anth 625
New England Historical Archaeology
In-depth survey of the current research in New England historical archaeology within the broader context of the field as a whole. The course includes presentations of current archaeological research in the Northeast and discussions/evaluations of current projects with regard to their theoretical approach, methods, and results. Additionally, a laboratory section affords practical training in the conjunctive analysis of archaeological and documentary data in problem oriented research. (Course next offered spring 1996.)
Prerequisite: Anth 240.
3 Lect Hrs, 3 Lab Hrs, 5 Credits
Mr Mrozowski

Anth 650
Materials in Ancient Societies
A one- or two-semester laboratory course offered as part of the teaching program of the Boston Area Center for Materials Research in Archaeology and Ethnology, of which UMass Boston is a member. The topic of the course rotates annually among lithic materials, ceramics, faunal/floral materials, metals, and archaeological data analysis. The course may be taken more than once.
3 Lect Hrs, 7 Lab Hrs, 5 Credits
Ms Luedtke

Anth 665
Graduate Seminar in Archaeology
This course is designed to provide students with a comprehensive background in current archaeological method and theory. It focuses on the major theoretical schools in archaeology, and their historical development. The course includes lectures and discussions on theory and method in archaeology as well as discussions of methods employed in other historical disciplines. Emphasis is also given to the articulation of social theory as developed in anthropology, history, and archaeological research.
Prerequisites: Anth 240 and Anth 241 or equivalent.
3 Lect Hrs, 3 Credits
Ms Luedtke, Mr Mrozowski

Anth L675 (AmSt L675)
Cultural Theory in Anthropology
This course surveys 20th century sociocultural theory, providing students in historical archaeology, American studies, and other disciplines with a complementary background in cultural anthropology. The emphasis is on American anthropologists, their theories of culture and the attention these theories give to history, and the discursive contexts within which these various theories have emerged. (Course next offered spring 1996.)
3 Lect Hrs, 3 Credits

Anth 685
Summer Field School in Historical Archaeology
Summer field survey or excavation in historical archaeology for 6-8 weeks in the Boston or New England area. Credit will be given for any other appropriate field school or internship at another institution.
Prerequisites: Anth 625 and Anth 665.
3 Lect Hrs, 6-10 Credits
Mr Mrozowski

Anth 696
Individual Research in Archaeology
Students may take this course in addition to those required in the program in order to pursue research relevant to the program of study.
Prerequisite: Permission of instructor.
4 Credits

Anth 697
Special Topics in Archaeology
The content of this course, while always relevant to the program, will vary depending on the specialty of the visiting or permanent faculty member who may teach this course on a temporary basis.
Prerequisite: Permission of instructor.
4 Credits

Anth 698
Practicum in Archaeology
For this course, graduate classroom education is applied in a practical situation, such as field work or a research project for a public archaeology contract agency, a museum, an archaeological laboratory, an historical commission, or a preservation agency. In the practicum students develop a wide range of valuable skills and experience related to possible future employment.
Prerequisites: Anth 625, 665, and permission of instructor.
Variable Hrs (depending on credits),
4-10 Credits

Anth 699
Thesis Research Projects in Historical Archaeology
In this course an MA thesis will be developed from a problem-oriented analysis of documentary and archaeological data. The MA thesis will include a description of the problem in the context of the disciplines of anthropology and history, its application to the data, a description of the analyses undertaken, and their results with reference to the problem. In the conclusion the results of the research project should be discussed in relation to other current research in the field. The MA thesis must be read and approved by an examining committee made up of three faculty readers, one from the History Program, one from the Anthropology Department, and one from a department to be determined.
Prerequisites: Anth 625, 665, 685, and permission of instructor.
6-10 Credits
Mr Mrozowski and Staff

Human Services (MS)

Faculty

Caroline Arnold, DSc, *Harvard University* •Public Health Policy

Constance Chan, PhD, *Boston University* •Clinical Psychology

Marian Darlington-Hope, MCP, *Massachusetts Institute of Technology* •Social Policy •Planning and Evaluation (Part-time)

Joan Ecklein, PhD, *Harvard University* •Sociology

Carroy Ferguson, PhD, *University of Rochester* •Counseling

Mark Freeman, PhD, *University of Michigan* •Public Health •Planning

Reebee Garofalo, EdD, *Harvard University* •Culture and Human Services

James Jennings, PhD, *Columbia University* •Public Policy and Government

Miller Lovett, PhD, *Boston University* •Administration and Systems

Margaret Rhodes, PhD, *University of California at Los Angeles* •Ethics and Social Policy

Ralph Rivera, PhD, *Brandeis University* •Social Policy

Richard Schnell, PhD, *Purdue University* •Clinical Psychology

Gary N Siperstein, PhD, *Yeshiva University* •Special Education

Miren Uriarte, PhD, *Boston University* •Sociology

Ann Withorn, PhD, *Brandeis University* •Social Welfare

Bette Woody, PhD, *Massachusetts Institute of Technology* •Public Policy •Organizations and Planning

The Program

The Master of Science Program in Human Services is designed to meet the graduate educational needs of adult practitioners in a broad range of human services jobs. It allows experienced people to acquire the knowledge, skills, and direction necessary for moving into new or more advanced positions in the field of human services. The program offers course work in all areas of the curriculum; in addition, as part of its interdisciplinary, competency-based approach, it seeks to evaluate the skills and knowledge demonstrated by students in a variety of settings. Students who demonstrate such skills and knowledge in a particular area may begin learning at their own level through independent study, and they may also seek evaluation to earn competencies without further instruction in a given area.

The program attempts to develop a model of human services practice that is critical yet practical in suiting the needs of the current and future human services workforce. The program has two major objectives:

1. It seeks to prepare students to become competent administrators, program developers, and planners of human services programs, who will have the capacity to combine a knowledge of direct services with the ability to handle such aspects of agency activity as personnel, finance, planning, and evaluation.
2. It seeks to give experienced direct care providers, client advocates, and case managers opportunities to increase their effectiveness in serving socially and culturally diverse populations through
   - the extension and broadening of their theoretical knowledge, and
   - the development of their skills in intervention, supervision, training, and systems management.

The overall goal of the program is to change expectations and to improve policies and practices in human services, through developing the skills and broadening the perspectives of the people working in the field. Entering students who bring with them a substantial amount of classroom and work experience may complete the degree in two academic years; most students take five or six semesters. In order to accommodate the needs of the majority of students in the program who are employed full time, most courses and other activities are offered in the evenings, with day and afternoon courses comprising less than one-quarter of the structured offerings.

The MS Program in Human Services is based on "competencies" rather than grades. Students demonstrate competence in a given area according to high standards of performance defined in advance. To demonstrate competence the student applies for evaluation in that area by a faculty member. The evaluation results either in the student receiving a competency, or in a plan for the student to do further work in the area as needed.

Students are admitted to the program for the fall semester only, and are invited to an orientation held one evening during the summer before the fall term begins. A series of workshops at the beginning of each fall semester helps to acquaint students with the program's competency-based system.

In a given semester, most students take one or two courses, and do independent or field-based learning in order to complete three competencies, which the program defines as a full load.

Degree Requirements

The MS in Human Services requires successful completion of 18 competencies, according to the following guidelines:

I. *Six interdisciplinary core competencies*: HS 601, 602, 603, 605, 606, 609.

II. *Five competencies in an area of concentration*: administration, direct service*, planning, dispute resolution, or gerontology. Competencies that meet this requirement are listed here.

Administration: HS 620, 621, 622, 623 or 625, 634.

*Direct Service**: HS 607, 608, 609, 610, 612, 613.

Planning: HS 630, 631, 632, 633, 634, 649.

The student may elect a concentration in gerontology or dispute resolution, with the permission of the appropriate program director and the director of the Human Services Program. For information on dispute resolution, see page 81 of this publication. For information on gerontology, see page 108.

III. *Five elective* competencies chosen from among those required for other concentrations, as listed above, and/or from the following: HS 640, 644, 647,648, 697a.

IV. *An independent project in policy analysis and program change*: HS 650 and 651 (Policy Analysis I and II).

Students must complete at least three of the total of 18 competencies in an approved field setting, which can be at their own or another agency.

*At the time of publication, this concentration was not being offered.

Human Services

Field Learning

Students are encouraged to use their work sites as bases for learning and demonstrating competencies. Students must demonstrate at least three competencies in the field, either within their own jobs or agencies, or through an outside field placement. To meet the requirements of field-based learning, the activity used to demonstrate student learning must have real, recognized, and direct consequences for the operation of an agency.

Admission Requirements

Please see the general statement of admission requirements for all programs on page 9 of this publication.

The MS in Human Services Admission Committee seeks to admit students with a diversity of backgrounds and educational and professional experiences. Applicants will be recommended for admission on the basis of both academic preparation to pursue graduate studies and appropriate professional experience in human services. Evidence of those qualifications includes

1. A résumé of professional activities that demonstrates substantial practical experience (paid or volunteer) in public or community service, and a personal statement that reflects harmony between the student's goals and program options.
2. Three letters of recommendation, at least one of which is from a supervisor currently working with the applicant in a professional context.
3. A score on the Miller Analogies Test. Please note: A test score is not required if the applicant holds an advanced degree from a US university.

Competencies

HS 601
Human Services Policy
Students will be expected to understand the historical background of social policies as well as the political and social issues involved in the formation and implementation of policy.

HS 602
Ethics In Human Services
Students will be expected to understand some of the chief ethical conflicts and their ethical and political underpinnings in the delivery of human services, as well as the centrality of these conflicts to the evaluation of organizational structure, to program design, to professionalism and to the relationship between worker and client.

HS 603
Race, Culture, and Ethnicity in Human Services
Students will be expected to understand the racial, cultural, and ethnic issues in the delivery of human services, including the impact of these issues on organizational structure, program design and the relationship between provider and client.

HS 605
Statistics in Human Services
In the field of human services, research studies have been and will continue to be a significant force. Professionals in this field will encounter such studies, as well as evaluations and other types of reports, which base their findings on statistical analyses of data collected from recipients or providers of human services. They may also find it necessary to do their own collection and analysis of data in order to better inform an organizational decision. This competency helps provide students with the requisite statistical skills and some knowledge of their applications in human services.

HS 606
Research Methods
Students will be expected to understand the basic principles of research design, statistical analysis, and the key dimensions of validity and reliability in research. Students will demonstrate the ability to critically review research in specialized areas and to relate research results to implications for the structure of service delivery and administration.

HS 607
Theories of Client Intervention
Students will be expected to understand the evolution of different models of behavioral change from theories of human development and to understand the similarity and differences between the assumptions in different models concerning the characteristics of the individual or social unit, the environment, and their interaction. Finally, students will evaluate the translation of models of behavioral change into practice in human services settings.

HS 608
Coordinating Helping Systems
In order to meet client needs, the human services worker takes into account the various systems (family, agencies, the community) that affect the client, and that can be resources for support of and assistance to the client. Effective management of these systems can contribute to the successful outcome of an intervention. Such management requires the ability to assess the potential role each system can play, and to maximize positive contributions. This ability in turn requires an understanding of how these systems relate to the client and to one another, and of the relative power of each system. It also requires skills as a negotiator who can enhance the supportive capacity of each system, and who can monitor the delivery of that support.
Prerequisites: HS 607, 612

HS 609
Supervision of Human Services Workers
One of the most important functions in human services organizations is the supervision of workers. High quality supervision insures that work is carried out effectively, that clients are treated well and receive the best possible service, and that direct service workers get the training, support, and oversight that they need. Effective supervision helps workers do better work and feel better about the work they do. Effective supervision can increase staff morale and heighten teamwork. Students who complete this competency will acquire a solid foundation in the latest theories and concepts of supervisory practice, will understand the essential components of good supervision, and will have the skills to implement them.

HS 610
The Social Context of Human Problems
In order to deliver services effectively, the human services worker must be aware of underlying social factors that contribute to individual difficulties. An individual homeless person may be "helped" to find temporary shelter, but finding deeper solutions requires a more thorough understanding of the whole problem of homelessness. Such understanding can only come from analysis of the range of complex historical and current issues that define the problem. The human services worker wishing to help individuals cope more effectively with what lies beyond the immediate "problem" must bring to bear relevant research and a broad knowledge of the social environment.
Prerequisites: HS 607, 612

Human Services

HS 612
Client Intervention Skills
All human services work is ultimately concerned with individuals, whether singly or in families, groups, or communities, because helping people to improve their conditions and circumstances is basic to human services. For human services workers who deliver services to clients, or supervise others who do, it is essential to be skilled in assessment, and in the theory, strategies, and techniques of intervention; and to have some knowledge of appropriate models. Practical experience in client intervention helps workers develop both understanding and skills that they can later bring to supervision. Students completing this competency will have demonstrated interpersonal skills and theoretical knowledge, as well as skill in assessment, case planning, and case management.

HS 613
Training of Human Services Workers
Insuring that workers are well-trained means improvement in the quality of services through an enhancement of workers' skills and morale, as well as a broadening of their perspective. Effective training happens when an understanding of the elements of such training is incorporated into a training process. A student completing this competency will know how to assess training needs, develop training goals, use the most effective methods, carry out the training, and evaluate the effort.

HS 620
Human Services Management and Leadership
Students will be expected to identify management styles and systems, and to analyze problems and issues related to strategies and operations in agencies as they affect performance. Students will be able to use management theory and systems to recommend changes in a typical human services organization or program.

HS 621
Human Resources Administration
Through use of a test, selected readings, discussions and case material, students will study a range of topics important in personnel administration in human services including hiring procedures, personnel policies, employee evaluation, in-service training, government regulation, affirmative action, and labor relations.

HS 622
Marketing Human Servicess
In recent years, administrators in the public and nonprofit sectors have grown increasingly aware that marketing theories and techniques long utilized in the business world can be helpful in assisting their organizations to develop better public relations, raise funds more successfully, and broaden community support. While it is usually not appropriate for public and non-profit organizations to use exactly the same marketing techniques and strategies as business, a balanced marketing approach specifically planned around the needs and objectives of an organization can be essential to maintaining a good public image and a healthy internal climate.

HS 623
Financial Management of Non-Profit Organizations
Knowledge of and control over the financial aspects of an organization are essential to the achievement of organizational goals. Careful management of finances and skill in solving financial problems are important in insuring that the needs of service recipients, staff, and the larger community are best served. When human services professionals are integrally involved in financial decisions, along with business and financial managers, the solutions that emerge tend to be broader, more creative, and more inclusive of the needs of all constituents. This competency requires students to develop skills in understanding and carrying out complex financial tasks common to both public and private nonprofit organizations. It also requires students to analyze the impact of financial decisions on those organizations.

HS 625
Public Sector Budgeting
For those involved in providing state-funded services, it is essential to understand the function and the process of public budgeting, especially given the fact that a major portion of the state budget is devoted to human services. Such an understanding is even more crucial in the present climate. The public demand to curtail revenue, the tax revolt embodied in Proposition 2½, and its resulting impact on municipal services have placed increasing demand on state services and local aid. These developments have come during a period when the federal government was initiating a major retreat in spending on education and human services. This combination of pressures has led to what we are experiencing now: not only a severe competition for state funding, but also a public demand for greater accountability in the performance of state-funded services.

HS 630
Human Services Planning
Students will be introduced to the theories and methodologies of planning in response to a problem presented by a client group or a problem within a human services agency. Students will be expected to demonstrate their knowledge by utilizing a planned approach to a problem situation and assessing and adjusting for its impact on the system to which they have been assigned.

HS 631
Human Services Needs Assessment
Students will investigate the variety of methodologies of conducting needs assessment in human services organizations. Through case studies and work on projects, they will develop skills in selecting methodologies, carrying out assessments, critically interpreting data and presenting the results.

HS 632
Evaluation Research
Evaluation research is an important planning tool in helping decision makers analyze the outcomes of policies and programs. The term "evaluation research" is meant to imply a somewhat more sophisticated approach to evaluating programs and policies than the term "program evaluation"; evaluation research utilizes techniques drawn from social science research methods. Whichever terms are used, the effective evaluation of programs and policies is being demanded increasingly by the public, by government officials, and by legislatures making decisions about public funding of human services. This competency requires that students demonstrate knowledge of the range of methods available for evaluating programs and policies, and demonstrate the ability to analyze an evaluation of a particular program.

HS 633
Fund Raising and Grant Seeking
Students will examine such funding options for human services programs as federal, state, local, fee-for-service and private fund raising. The history of government funding of human services will be reviewed and new alternatives for financing services will be explored, taking into consideration current economic and policy trends. Students will acquire skills in developing strategies for fund raising and in organizing proposals.

Human Services

HS 634
Computer Information Systems
Increasingly, human services providers are expected to use computer technology in many of their administrative activities. In management and planning, computers have become almost indispensable in meeting the demands of the reporting and the client verification required for federal and private funding. In addition, microcomputers have given human services managers greater access to information, and thus enabled them to make more knowledgeable decisions. Clearly, the human services manager needs to understand and to develop familiarity with computer systems.

HS 640
Group Dynamics
As a human services provider one is continuously working in or with small groups of colleagues, clients, families, and educational groups on various tasks. The small group, moreover, is a major part of every organization. It is therefore necessary for human services providers to understand the development, dynamics, theories, and concepts of group processes. A competent human services provider can observe, diagnose, analyze, plan, and work in and with small groups in a constructive and purposeful manner.

HS 644
Family Intervention
Students will examine major theories of intervention with families in order to develop a coherent and realistic method of applying theoretical knowledge in the field. The areas of study are: 1) current theoretical approaches to family intervention; 2) enhancement of skills in assessment, planning, referral, implementation and evaluation, and 3) supervised field work.

HS 647
Strategies for Change
Implementing any desired change in program delivery, or in broader social policy demands the ability both to analyze systematically the situation requiring change, and to assess the available range of strategic and tactical options. Demonstration of this competency indicates that a student is able to go beyond immediate, short range solutions and to consider a wider spectrum of solutions than is usually deemed relevant to human services work.

HS 648
Comparative Social Policy and Practice
The premise of this competency is that there is much to be learned about our system by examining the human services philosophies, policies, and methods used in other countries. Such examination provides a rich source for ideas about creative solutions and compassionate responses to the many complex problems facing human services programs.

HS 649
Program Development
A good program developer must be able to analyze the results of a needs assessment and use knowledge about new research, theories, and program models to respond to those needs. This entails the effective utilization of available knowledge, pulling together the right mix of people to design a program, the mobilizing of support and resources, and the ability to anticipate both political and logistical barriers to program development.

HS 650-651
Policy Analysis I and II
(double weighted competency)
The goal of this master's program is to develop human services workers who have the breadth of background and the skills necessary to enact changes that will improve services to people. This double-weight competency is expected to be the capstone to a student's work, in that it should build on prior skills and should involve outside evaluation by professionals in the field as well as by faculty associated with the program and with the College of Public and Community Service (CPCS). This generic competency requires that part of a student's competence be evident in her or his ability to identify the appropriate policy background necessary for making a particular proposed change, and to explain fully, as well as plan to implement, the desired change. For this reason, each student is asked to submit an individualized plan. This plan, once approved by the CPCS evaluator and the mentor, will serve as the requirement for addressing the competency.

HS 660
Writing for Human Services Agencies
This course focuses on the specific kinds of writing characteristic of many human services agencies: Letters, memoranda, process reports, grant proposals, grant and research reports. Its goal is to help enable students to write clearly, to edit and organize their own writing, and to approach writing tasks constructively.

HS 697
Special Topics in Human Services
An advanced course offering intensive study of selected topics in human services. Course content will vary according to the topic, and be announced prior to registration.

Instructional Design (MEd, Graduate Certificate)

Instructional Design (MEd)
Educational Technology (Graduate Certificate)

Faculty

William Braun, PhD, *Catholic University* •Communication (Part-time)

Robert Cooper, BA, *Washington & Lee University* •Video (Part-time)

William Coughlin, JD, *New England School of Law* •Organization Development (Part-time)

William Curran, MEd, *Boston University* •Human Resources (Part-time)

Margaret Driscoll, MBA, *University of Massachusetts Boston*, MA, *Columbia University* •Instructional Design (Part-time)

Fran Massey, MEd, *University of Houston* •Public Speaking (Part-time)

Canice McGarry, MEd, *Boston University* •Adult Education

Ray Melcher, MEd, *Harvard University* •Interactive Technology (Part-time)

Ron Polito (Art Department), EdD, *Boston University* •Photography

Robert Risse (Art Department), PhD, *Washington University* •Television

Arthur Shirk, MBA, MEd, *University of Massachusetts Boston* •Needs Assessment (Part-time)

The Program

The MEd in instructional design is an ideal master's degree for career professionals engaged in the education, training and development of adult learners in the workplace. Students experience a dynamic learning process and curriculum that meets the current educational demands of the marketplace. This unique program is a comprehensive course of study which gives equal importance to both the design and delivery of adult instruction. Applications of this process appear in every kind of organization including business and industry, educational institutions, government agencies, the military, health care, churches, and professional societies.

The multi-disciplinary academic program requires 36 credits for completion. Using the principles and practices of adult education, theoretical and applied courses concentrate in three areas:

1. building a foundation/conceptual framework for the instructional design process;
2. developing instructional strategies and skills to facilitate adult learning; and
3. the use of educational media and technology to enhance the learning process.

Students are given the opportunity to increase their knowledge and to develop the skills and techniques necessary for the effective design and presentation of instructional materials. Course study focuses on the instructional design process, adult learning theory, communication, media, technology, and organizational knowledge. Emphasis is placed on the students' application and evaluation of their learning. Faculty members holding part-time status in this program are career professionals—strongly committed to sharing their knowledge and skills with those entering the field.

The program offers evening classes which meet once each week to accommodate full-time and part-time students. Non-degree-students are invited to select individual courses to meet their career-development or other specialized needs; admittance to courses is on a space available basis.

Degree Requirements

The 36-credit program, flexibly designed to meet individual needs, combines a total of 12 required and elective courses (which may include a field experience), and submission of a final project or thesis.

Required and Elective Courses

The program curriculum includes courses in three areas:

Area I: Instructional Design Core Courses

The following five courses, required of all degree candidates, provide a foundation and a context for the instructional design process. The first two courses (InsDsg 601 and 602) form the basis of the program and should be completed first. The remaining three may be completed at any time during the program.

InsDsg 601 (Introduction to Instructional Design)
InsDsg 602 (The Adult as Learner)
InsDsg 604 (Communication Theory for Organizations)
InsDsg 618 (Assessment in the Instructional Design Process)
InsDsg 620 (Interpersonal Skills/Group Dynamics)

Area II: Instructional Strategies and Skills

Students take two courses in this area. Current course offerings include:

InsDsg 603, 612, 614, 630, 632.

Area III: Educational Media and Technology

Students take two courses in this area. Current course offerings include

InsDsg 605, 608, 610, 616, 617, 640, 650, 655.

Additional Electives

In order to complete the 36-credit program, students may choose three additional electives from Area II, Area III, or a wide range of graduate offerings throughout the University. They may also choose to complete some of their credits in two other ways:

Independent Study: This option is available with permission of the program director.

Field Experience: A full semester (3- to 6-credit) field experience, designed to provide a synthesis of learning in the classroom with practice in the field, is an elective option for all students. Arrangements for field experience placements should be made in consultation with the program director. Placements will be appropriate to students' interests and abilities.

The Final Project or Thesis

An instructional design final project or thesis is required of all degree candidates for the MEd. For additional information please consult the program director.

Advising

All students are expected to meet with an advisor each semester for prior approval of course selection.

Admission Requirements

Please see the general statement of admission requirements for all programs on page 9 of this publication.

The MEd Program in Instructional Design invites applications from individuals with a variety of academic and experiential backgrounds who hold baccalaureate degrees from an accredited institution. Admission criteria include

Instructional Design

1. A personal interview with the program director.
2. A statement of interests and intent.
3. Three letters of recommendation from former teachers familiar with the applicant's recent academic work, or from employers familiar with his or her professional ability.
4. A score on the Miller Analogies Test. Please note: A test score is not required if the applicant holds an advanced degree from a US university.
5. An updated résumé.

The Certificate in Educational Technology

The Graduate Program in Instructional Design also offers a certificate program in educational technology. Many academic, corporate, and public educators wish to know more about using multimedia for instruction and training purposes in their own areas of expertise. For them and for other interested persons, this certificate program offers the opportunity to design and produce interactive multimedia materials through a combination of classroom and hands-on laboratory work.

Admission requirements are the same as for the MEd program. In addition, applicants to the certificate program must also have completed InsDsg 601 (Introduction to Instructional Design) or its equivalent, as determined by the program's faculty advisor, and must demonstrate basic competency in computer use by satisfactorily completing a proficiency test. It is recommended that interested persons consult with the graduate program director before applying for admission to the certificate program.

The program is also open to students currently matriculated in any UMass Boston graduate program. They may enroll in the program after consulting with academic advisors in their own programs, and should submit a statement of purpose to the graduate program director of the Instructional Design Program. These students must also complete InsDsg 601 or its equivalent and take a computer proficiency test, before enrolling in the program.

Participants seeking the certificate take a total of five courses (15 credits) which offer them experience with the kinds of software commonly used for educational computer materials; as well as studies relating to the place of educational technologies in instructional strategies, to techniques of project management, and to the proposal and design phases of technology-based instructional development. Students are required to maintain a 3.0 GPA throughout the program.

For complete information on the availability of this certificate program, please contact the graduate program director.

Educational Technology Certificate Program courses include

InsDsg 616 (Production of Computer-Based Training)
InsDsg 617 (Advanced Computer-Based Training)
InsDsg 640 (Planning and Design of Educational Multimedia Programs)
InsDsg 650 (Assessment of Educational Technologies)
InsDsg 655 (Project in Multimedia)

Courses

InsDsg 601
Introduction to Instructional Design
This course provides an introduction to the cognitive and experiential content of the program. The course emphasizes the components of the instructional design model. Various models are analyzed, and students are expected to complete, as a final project, a learning module micro-design.
3 Lect Hrs, 3 Credits
Ms. Driscoll

InsDsg 602
The Adult as Learner
Students are introduced to the body of knowledge concerning adults as learners. This course focuses on the principles of adult education, learning styles, variables that affect adult learning, motivation techniques, appropriate training methodologies, reinforcement of learning, skill transfer ,and measurement procedures for identifying learner characteristics.
3 Lect Hrs, 3 Credits
Ms. McGarry

InsDsg 603
Selection and Evaluation of Instructional Materials
This course analyzes the factors that determine the selection, evaluation, and utilization of materials used in instructional design. It studies the comparative instructional value of a wide range of print and non-print materials. At the end of the course students will be able to choose materials on the basis of cost effectiveness, technical quality, teaching-learning mode, physical facilities, and availability of equipment. (Course offered in the spring only.)
Prerequisite: InsDsg 601 and 602.
3 Lect Hrs, 3 Credits
Ms Driscoll

InsDsg 604
Communication Theory for Organizations
This course focuses on the study of communication as applied to instructional technology, and on theories of media communication. It covers audience variables, systems of media analysis, message structure, environmental factors, and the integration of these elements into an efficient communication model.
Prerequisites: InsDsg 601 and 602.
3 Lect Hrs, 3 Credits
Mr Braun

InsDsg 605
Production of Media Materials
This course provides a systematic survey of a variety of media formats including overhead projection, visual displays, audio and visual presentations, still and moving photography, and portable video. Aspects of theory include psychological principles and research on media as a teaching mode. Students have the opportunity of applying knowledge and skills to selected areas of media production, especially as they provide solutions to instructional problems. (Course next offered in 1997-1998.)
Prerequisites: InsDsg 601 and 602
3 Lect Hrs, 3 Credits

InsDsg 608
Photographic Principles for Instructional Design
This course, intended for those at a low-to-moderate level of photographic skill, concentrates on the role of single and multi-image photography in instructional design. The course examines such principles of photographic communication as perception, visual learning, and visual design; and analyzes examples of photography in instructional applications. Students are expected to apply these principles through photographic exercises and projects. While some basic photographic technology is covered, it is not a beginning or intermediate course in "photography." Its principal intent is to provide students with sufficient knowledge—supported by the necessary skills—for the appropriate use of photography in the instructional process, and for communicating effectively when working with a professional photographer. Access to an adjustable 35mm camera is required. All work uses the 35mm slide format. (Course offered in the fall only.)
Prerequisite: InsDsg 601 and 602.
3 Lect Hrs, 3 Credits
Mr Polito

Instructional Design

InsDsg 610
Television Principles for Instructional Design
This course provides a comprehensive introduction to television production theory and technique, including the study of principles for analyzing and synthesizing information, and of some basic video instructional formats. The goal is to equip those responsible for developing instructional materials with the skills they need in order to work with video professionals in creating, designing, and producing instructional video programs. (Course offered in the spring only.)
Prerequisite: InsDsg 601,602 and 604.
3 Lect Hrs, 2 Lab Hrs, 3 Credits
Mr Cooper

InsDsg 612
Instructional Strategies and the Adult Learner
This course is designed to assist participants in making classroom training more effective. Emphasis is on instructor roles and tasks, determining learning styles, and selecting appropriate techniques. Techniques focus on stand-up teaching skills including lecture, question-and-answer, discussion and facilitation, as well as common media formats, role-playing, games and simulations, and case studies. (Course offered in the fall only.)
Prerequisite: InsDsg 601, 602 and 604.
3 Lect Hrs, 3 Credits
Mr Coughlin

InsDsg 614
Writing for the Business Professional
This course is designed to help participants develop effective writing. It provides both analysis of written documents and a theoretical review of professional writing techniques. Assignments emphasize the writing tasks typically required of training and development specialists in any organization. They include the design, assessment, marketing, and evaluation of instruction. Participants develop the skills for effective communication with those outside the organization, and those at all levels within it. (Course next offered 1997-1998.)
Prerequisite: InsDsg 601 and 602.
3 Lect Hrs, 3 Credits

InsDsg 616
Production of Computer-Based Training
A basic course in developing computer-based presentation programs. Through such programs as Hypercard and Powerpoint, students are introduced to state-of-the-art CBT development software. The course addresses user interface design; the execution of common instructional strategies employed in training products; techniques of graphics production (scanners, clip art and paint programs) and sound production techniques (Macrecorder and Macintalk); and introductory scripting in HyperTalk. The course is project-based: students work in teams to design, make prototypes, and produce simple CBT or multimedia programs. (Course offered in the fall only.)
Prerequisite: InsDsg 601,602 and 618.
3 Lect Hrs, 3 Credits
Mr Melcher

InsDsg 617
Advanced Computer-Based Training
This course builds on the students' basic knowledge of creating course ware and multimedia. They learn techniques of advanced scripting (HyperTalk) and multimedia presentation; ways to integrate text, graphics, animation, sound and motion video into CBT and multimedia products; and methods of developing student tests and student tracking systems. The course is project-based: students work in teams to design, make prototypes, and produce simple CBT or multimedia programs. (Course offered in the spring only.)
Prerequisite: InsDsg 616.
3 Lect Hrs, 3 Credits
Mr Melcher

InsDsg 618
Assessment in the Instructional Design Process
This course examines assessment in all phases of the instructional design process including needs analysis and the various stages of formative and summative evaluation. Topics include various types of data, techniques for data gathering, the construction of such instruments as questionnaires, a hands-on review of computer programs, and characteristic issues in the analysis and interpretation of assessment. The course also offers practical experience in the use of representative measures and applications.
Prerequisite: InsDsg 601 and 602.
3 Lect Hrs, 3 Credits
Mr Shirk

InsDsg 620
Interpersonal Skills and Group Dynamics
This course introduces the students to the body of knowledge governing interpersonal, intrapersonal, and public communication. Through readings and the laboratory method, students learn human relations skills for effectiveness in personal and career situations. Topics include perception, listening, conflict resolution, and group dynamics.
Prerequisites: InsDsg 601, 602, and 604 or permission of program director.
3 Lect Hrs, 3 Credits
Ms McGarry

InsDsg 630
Managing The Training Function
This course focuses on the requirements for successfully managing an organization's training function. Areas of concentration include building a training department; managing change and stress; delegating; communicating performance expectations; winning management support; and long range planning. Classes include small and large group instruction, video, participatory exercises, and case studies. (Course offered in the spring only.)
Prerequisites: InsDsg 601, 602 and 618.
3 Lect Hrs, 3 Credits
Mr Curran

InsDsg 632
Workplace Education: Theory and Practice
This course introduces workplace education through the study of organizational and human resource development. Emphasis is on managing productive change by using tested theory in actual workplace situations. (Course next offered 1997-1998.)
Prerequisites: InsDsg 601,602,604 and 618.
3 Lect Hrs, 3 Credits
Ms McGarry

Instructional Design

InsDsg 640
Planning and Design of Educational Multimedia Programs
This course helps students become familiar with the current uses of the video disk and other multimedia, as well as with such delivery platforms for multimedia as SonyViewSystem, IBM M-motion, IBM's DVI, Philips CDI, and with the planning, budgeting and logistics of video production. Participants learn the range of authoring tools that exist for these systems and their relative advantages. They apply principles of instructional and course ware design and study the practical considerations involved in the production of visual media, as well as writing a design proposal and a multimedia project budget. Using this general design document, students produce specifications for the video, computer program flow, graphic screens, video disk layout and other effects that translate the original instructional design into a usable program. They also achieve basic proficiency in the use of a popular project management software program. (Course next offered 1997-1998.)
3 Lect Hrs, 3 Credits

InsDsg 650
Assessment of Educational Technologies
As one of the last courses in the Educational Technology Certificate Program this course on formative and summative evaluation brings the students' practical experience in computers and multimedia together with the study of the ways these technologies get used in the classroom. Students examine the formative evaluation process for technology-based programs in corporate training programs and school curriculums. By obtaining feedback from representatives of the target audience in the early stages of a product's development, the developer can assure that it meets goals while staying within its budget. Formative evaluation plans are now required by most funding sources and corporations. Summative evaluation—the evaluation of an educational product at the end of its development process—is a way to determine whether the project has met its goals. Students learn to apply these assessment procedures in a project based on a real-world application. (Course next offered 1997-1998.)
3 Lect Hrs, 3 Credits

InsDsg 655
Project in Multimedia
Students work with UMass Boston faculty, teachers in cooperating schools or sponsoring corporations to make a prototype multimedia application or to produce a planning document for multimedia implementation in the client organization. Students may participate in projects pre-arranged by the educational technology staff or may generate their own, working individually or in a team. (Course next offered 1997-1998.)
Hrs to be arranged, 3 Credits

InsDsg 696
Independent Study
The comprehensive study of a particular topic or area in instructional design, as determined by the needs of the individual student. The student works under the guidance and supervision of the instructor.
Prerequisite: Permission of graduate program director.
3 Lect Hrs, 3-6 Credits
Ms McGarry

InsDsg 697
Special Topics in Instructional Design
An advanced course offering intensive study of selected topics in instructional design. Course content varies according to the topic, and will be announced prior to registration.
3-6 Lect Hrs, 3-6 Credits

Nursing (MS)

Nursing and Management Program (MS/MBA)

Faculty

Cynthia S Aber, EdD, *Boston University* •Family Nursing

Kristine B Alster, EdD, *Boston University* •Nursing Education

Donald L Anderson, EdD, *Vanderbilt University* •Gerontological Nursing

Mary D Arathuzik, DNSc, *The Catholic University of America* •Medical Surgical Nursing

Brenda S Cherry, PhD, *University of Nebraska at Lincoln* •Pediatric Nursing •Nursing Administration

Janice Ciesla, EdD, *Boston College* •Family Nursing

Jane Cloutterbuck (Gerontology Program, Nursing Program), PhD, *Brandeis University* •Gerontological Nursing

Linda Dumas (Gerontology Program, Nursing Program), PhD, *Boston University* •Community Health Nursing

Margaret S Edmands, EdD, *Boston University* •Mental Health Nursing

Carol Ellenbecker, PhD, *Brandeis University* •Nursing Research

Joanne Frey, PhD, *Boston College* •Family Nursing

Joan Garity, EdD, *Boston University* •Nursing Education

Sylvia W Gendrop, PhD, *Boston College* •Nursing Research

Susan Haussler, EdD, *Vanderbilt University* •Family Nursing

Anne K Kibrick (Emerita) EdD, *Harvard University* •Nursing Administration

Diane Lancaster, PhD, *Wayne State University* •Nursing Theory

Patricia P Manuel, EdD, *Boston University* •Nursing Administration

Mary T O'Brien, PhD, *New York University* •Medical Surgical Nursing •Nursing Theory

Victoria Palmer-Erbs, PhD, *Boston University* •Nursing Research

Frances L Portnoy (Gerontology Program, Nursing Program), PhD, *Brandeis University* •Gerontological Nursing (On leave, 1995-96)

Helen Reiskin, PhD, *Boston University* •Family Nursing •Nursing Research

Amy Rex-Smith, DNSc, *University of California* •Critical Care Nursing

Mary Ann Ringquist, EdD, *Boston University* •Family Nursing

Myron R Segelman, PharmD, *Creighton University* •Pharmacology

Lena Sorensen, PhD, *City University of New York* •Family Nursing (On leave, 1995-96)

Marion Winfrey, EdD, *Vanderbilt University* •Critical Care Nursing

Lin Zhan, PhD, *Boston College* •Gerontological Nursing

The Program

The MS Program in Nursing prepares its graduates for professional leadership in nursing and health care. Each student in the program focuses on one of four functional areas: nurse educator, nurse administrator, nurse practitioner, or clinical nurse specialist. The student also chooses one of three clinical concentrations: adult critical care nursing, gerontological nursing, or family nursing.

Students work with faculty members distinguished for their achievements as educators, scholars, and practitioners, and dedicated to developing their students' professional and intellectual interests. The program gives its graduates a strong background in nursing theory, practice, and research. Students may pursue individual professional objectives by working in practica with expert preceptors, and through independent study experiences designed in collaboration with faculty members.

The program is designed for baccalaureate-prepared registered nurses with strong clinical backgrounds, and tailored to meet the needs of busy professionals. Each theory course meets once per week in the evening. Practica are usually conducted during the day, on schedules arranged between students and faculty. The program can be completed in three semesters of full-time study for students in the functional areas of nurse educator, nurse administrator, or clinical nurse specialist, or four semesters for those in the nurse-practitioner area; part-time enrollment is also possible. The program is accredited by the National League for Nursing.

For registered nurses with a diploma or an associate's degree, a special accelerated program offers the opportunity to pursue both the bachelor's degree and the MS. For more information see the section below on page 126 describing the RN-to-MS Accelerated Pathway.

In cooperation with UMass Boston's Master of Business Administration Program, the MS Program in Nursing offers a combined MBA/MS Program. For more information see the MBA/MS section below on page 126.

Degree Requirements

For Students in the Areas of Nurse Educator, Nurse Administrator, or Clinical Nurse Specialist

A total of 42 credits is required, distributed as follows:

A. Core Courses

1. Nursng 601 (Advanced Nursing Concepts in Theory and Practice), 3 credits
2. Nursng 602 (The Research Process in Nursing), 3 credits
3. Nursng 603 (Application of Research to Nursing Practice), 3 credits

B. Clinical Concentration

Four courses (including one practicum), 15 credits.

C. Functional Area

Three courses (including one practicum) in the nurse administrator, nurse educator, or clinical nurse specialist area, 15 credits.

*D. Electives**

Six credits of elective courses.

Full-time students can expect to complete the program in three semesters. Those attending part-time can expect to complete it in four to seven semesters. Full-time students take courses in the following sequence:

Semester I	
Nursng 601	3 credits
One functional area course	3 credits
One clinical concentration course	3 credits
One elective	3 credits
	12 credits
Semester II	
Nursng 602	3 credits
One functional area course	3 credits
One clinical concentration course	3 credits
One clinical concentration practicum	6 credits
	15 credits
Semester III	
Nursng 603	3 credits
One clinical concentration course	3 credits
One functional area practicum	6 credits
One elective	3 credits
	15 credits
TOTAL	42 credits

*Electives may be selected from within the program or from approved graduate offerings of other UMass Boston programs.

Nursing

For Students in the Nurse Practitioner Area

A total of 45 credits is required, distributed as follows:

A. Core Courses

1. Nursing 601 (Advanced Nursing Concepts in Theory and Practice), 3 credits
2. Nursing 602 (The Research Process in Nursing), 3 credits
3. Nursing 603 (Application of Research to Nursing Practice), 3 credits

B. Clinical Concentration

Five courses, 15 credits.

C. Functional Area

Four courses (including three practica), 18 credits.

D. Electives

Three credits of elective courses.

Full-time students can expect to complete the program in four semesters. Those attending part-time can expect to complete it in six to eight semesters. Full-time students take courses in the following sequence:

Semester I	
Nursing 601	3 credits
One functional area course	3 credits
Two clinical concentration courses	6 credits
	12 credits
Semester II	
Nursing 602	3 credits
One clinical concentration course	3 credits
One functional area practicum	3 credits
One elective	3 credits
	12 credits
Semester III	
Nursing 603	3 credits
One clinical concentration course	3 credits
One functional area practicum	6 credits
	12 credits
Semester IV	
One clinical concentration course	3 credits
One functional area practicum	6 credits
	9 credits
TOTAL	45 credits

Admission Requirements

Please see the general statement of admission requirements for all programs on page 9 of this publication.

Prospective graduate students in nursing will meet the general admission requirements for graduate study at UMass Boston, and these specific criteria for admission to the MS Program in Nursing:

1. A bachelor's degree from an NLN accredited school of nursing.
2. A current Massachusetts license in nursing.
3. Evidence of one or more years of recent professional practice.
4. Completion of a course in introductory statistics.
5. Completion of a course in health assessment.
6. Submission of Graduate Record Examination (GRE) scores for aptitude tests.

The RN-to-MS Accelerated Pathway

This special program is for registered nurses who wish to pursue studies toward both the bachelor's degree and the MS. For a registered nurse with either a diploma or an associate's degree in nursing, the Accelerated Pathway offers the opportunity to earn both a bachelor's degree and a master's degree in nursing in less time than earning these degrees would normally require. The program, which students enter in the spring semester, requires two calendar years of full-time study. Admission requirements include

1. The completion of certain undergraduate-level courses.
2. A 3.0 undergraduate GPA.
3. A current Massachusetts RN license.
4. Evidence of one or more years of recent professional practice as an RN.
5. Submission of Graduate Record Examination (GRE) scores for aptitude tests.

Registered nurses interested in the program may obtain further information from

Coordinator
RN-to-MS Accelerated Pathway Program
College of Nursing
UMass Boston
100 Morrissey Blvd
Boston MA 02125
617 287-7500

The MS/MBA Program

This program of integrated study prepares its graduates to manage patient care and health programs at executive levels in a variety of management positions as follows: unit manager, clinical director, director of nursing, policy and management specialist, quality assurance specialist, and corporate nursing specialist. Graduates of the program earn the joint master of science in nursing and master of business administration degree. Students take nursing and management courses concurrently, completing a total of 17 core courses and six elective courses. The full-time plan of study occupies three calendar years of study; part-time enrollment is typically six to eight semesters. Admission requirements are the same as for the MS program in nursing except that a cumulative grade point average of 3.0 is expected for the last 60 semester hours of undergraduate course work, and submission of Graduate Management Admission Test (GMAT) results are required instead of GRE test scores.

Courses

Core Courses

Nursng 601
Advanced Nursing Concepts in Theory and Practice
This course focuses on the nature and use of inquiry in the development and refinement of nursing theory. It provides students with the opportunity to discuss and analyze conceptual and theoretical bases for nursing practice. Each student selects a theoretical or conceptual framework to evaluate.
3 Lect Hrs, 3 Credits

Nursng 602
The Research Process in Nursing
The course focuses on research concepts, methods for conducting research and analysis of the strengths and weaknesses of various approaches. Issues related to the conduct of nursing research are examined. The course prepares students to design and carry out an original research project. Exercises provide an opportunity for the students to practice research skills.
3 Lect Hrs, 3 Credits

Nursng 603
Application of Research to Nursing Practice
The course elaborates on the critical analysis of concepts, methods and findings of nursing research presented in Nursng 602. The student collaborates with other nurses and health care professionals to conduct a research study. The course focuses on logical analysis of data, interpretation of findings and application of the findings to nursing practice. Students work closely with the faculty to assure that the research report is coherent in expression and substantive in content.
Prerequisite: Nursng 602, or equivalent with permission of instructor.
3 Lect Hrs, 3 Credits

Nursing

Nursng 608
Electrocardiogram Interpretation in Critical Illness
This course focuses on the identification of cardiac dysrhythmias and conduction disorders, their causes, and their hemodynamic effects. Emphasis is on acquiring the skills necessary for diagnosis of acute and/or potentially lethal conditions. Also considered is the nursing management of emergency treatment. Class format provides for active participation in ECG interpretation.
3 Lect Hrs, 3 Credits

Nursng 609
Ethical Issues in Health Care
The course considers moral theories and fundamental principles of health care ethics, and examines the moral and ethical dimensions of nursing practice. It explores the role of the nurse in the process of ethical decision making, giving attention to issues of collaboration among the nurse, the client, the family, the community, and other health professionals. Case studies are used to investigate ethical concerns in critical care, family, and gerontological nursing.
3 Lect Hrs, 3 Credits

Functional Area Courses

Nursng 611
Administration in Nursing
This course synthesizes the theories and concepts from the fields of organizational behavior and management for application to nursing administration. It includes a critical analysis of an organization's philosophy, purpose, and objectives as they relate to nursing and the delivery of optimal patient care in hospitals and health care agencies. The influence of changing health care economics and innovative delivery of care models are examined along with the ethical, social, and legal aspects involved. The multiple roles of the nurse administrator as leader, strategic planner, financial manager, human resource manager, and facilitator of nursing research are analyzed.
3 Lect Hrs, 3 Credits

Nursng 621
Curriculum Development and Teaching in Nursing
Students examine the historical development of nursing education and consider the social, political, economic, legal, and ethical issues influencing contemporary nursing education. The role of the nurse educator is analyzed at the classroom, institutional and national levels. Particular attention is given to the development, implementation, and evaluation of curricula. Findings from educational research in nursing and other disciplines are applied to teaching and curriculum development in nursing.
3 Lect Hrs, 3 Credits

Nursng 631
The Role of the Advanced Practice Nurse
This course focuses on the historical development and the components of the role of the advanced practice nurse. It provides students with the opportunity to analyze and synthesize role theory, systems theory, and change theory for applications to advanced nursing practice. Research findings and principles of leadership, consultation, teaching, and evaluation are analyzed and applied to advanced nursing practice. Health policy, legal, and ethical issues affecting the practice of the advanced practice nurse are critically examined.
3 Lect Hrs, 3 Credits

Clinical Concentration Area Courses

Nursng 641
Theoretical Perspectives for Family Nursing
Students analyze selected theories of the family as they apply to advanced nursing practice. Socioeconomic, cultural, legal, ethical and political issues relating to family health are critically examined. Varieties of family forms are explored, and pertinent research is evaluated, with an emphasis on its relevance to family nursing.
3 Lect Hrs, 3 Credits

Nursng 642
Nursing Care of Families Experiencing Acute Illness or Threats to Health
The basic unit of nursing analysis is the family. This course focuses on the study of families who are experiencing acute illness or threats to health. Topics include, but are not limited to, threats to families in pregnancy and the postpartum period, factors influencing family-child relationships, families experiencing acute illness, and families mourning a loss. Research related to nursing care of these families is critically evaluated. Relevant legal, social, and ethical issues are considered.
Prerequisite: Nursng 641, or permission of instructor.
3 Lect Hrs, 3 Credits

Nursng 643
Nursing Care of Families Coping With Chronic Illness
This course focuses on the nursing care of families who are experiencing a threat to their health that is continuing or long term in nature. Examples of continuing threats to health of families include, but are not limited to: chronic disease, disability, substance abuse, and violence. Theories and research relating to stress, coping, and adaptation augment the basis for nursing assessment and interventions with families. Community resources available to families as well as relevant legislation, social policies, and ethical issues are considered.
Prerequisite: Nursng 641, or permission of instructor.
3 Lect Hrs, 3 Credits

Nursng 651
Nursing the Well Elder
This course emphasizes contemporary health issues that affect the well elderly population. The phenomenon of aging is examined as both a unique and a universal experience. Theories that provide critical insights into understanding the needs of an aging population guide the application of the nursing process to health promotion and health maintenance interventions. The student is introduced to the field of research in aging and gains insights into the present state of gerontological nursing research. The roles of gerontological nursing in meeting the health care needs of the elderly in diverse settings are compared and contrasted.
3 Lect Hrs, 3 Credits

Nursng 652
Nursing the Acutely Ill Elder
This course concentrates on the needs of the elder with an acute illness. Principles from gerontological nursing theory and research guide the assessment, management, and evaluation of the older adult. Acute conditions that commonly affect the elderly are discussed. Pathological processes and underlying alterations in functioning due to aging are analyzed. Nursing strategies to minimize the adverse effects of hospitalization on the acutely ill elder are highlighted. Interdisciplinary coordination of care and discharge planning is emphasized.
3 Lect Hrs, 3 Credits

Nursng 653
Nursing the Frail Elder
This course focuses on the needs of the frail elderly, on the human concerns of death and loss, and on the common chronic conditions of the oldest old. Emphasis is placed upon the use of the nursing process in long-term care. Content includes appropriate nursing interventions for elders with multiple physical impairments and complex psychosocial needs. The role of informal care givers is examined. Factors that influence the delivery of long-term care services to the institutionalized and non-institutionalized frail elderly are analyzed.
3 Lect Hrs, 3 Credits

Nursng 661
Advanced Pathophysiology for Critical Care Nurses
This course provides nurses with the knowledge necessary for the analysis and interpretation of physiologic processes in the critically ill adult. The course builds on participants' previous knowledge of molecular, cellular, and organ physiology, physiologic dysfunction, and physiologic adaptations. Students examine the relationships between pathophysiologic changes and environmental and psychosocial factors in the critically ill adult.
3 Lect Hrs, 3 Credits

Nursing

Nursng 662
Nursing Care of the Critically Ill Adult
This course provides nurses with the knowledge necessary for the analysis and interpretation of physiologic processes in the critically ill client. The course builds on the student's previous knowledge of molecular, cellular, and organ physiology, physiologic dysfunction and physiologic adaptations. Students examine the relationships between pathophysiologic changes and environmental, psychosocial and therapeutic factors in the critically ill client.
Prerequisite: Nursng 641.
3 Lect Hrs, 3 Credits

Nursng 663
Concepts in Critical Care Nursing
This course is designed to utilize knowledge of the physical and behavioral sciences as a basis for promoting further understanding and investigation of selected human responses to critical care health problems. Underlying pathophysiology, significant cues, nursing therapeutics, and relevant research studies are explored and analyzed. The concepts of regulation, sensation, and protection are used to stimulate thoughts and facilitate decision-making about practice and research. Phenomena studied represent human responses to the critical care health problems of regulation, sensation, and protection.
3 Lect Hrs, 3 Credits

Nursng 665
Trauma Nursing
This course focuses on trauma care nursing from injury prevention through rehabilitation. Topics include mechanism of injury, types of traumas and related complications, and forensic nursing. Legal, ethical, policy, economic, cultural, psychosocial, and research issues related to the delivery of trauma care are discussed. Students analyze the role of the nurse in trauma care in both urban and rural locales, pre-hospital care and disaster planning, and the establishment of trauma systems.
3 Lect Hrs, 3 Credits

Nursng 696
Independent Study
Students wishing to enroll in this course should present to the faculty a well-defined problem for investigation. Plans for advanced study should be established at the beginning of the semester during which the student wishes to take the course. The study will be conducted in consultation and collaboration with the student's faculty advisor, and documented in a report at the end of the semester.
Prerequisites: 6 graduate credits in nursing and permission of the graduate program director.
Hrs by arrangement, 1-3 Credits

Practica

Nursng 698a
Practicum: Administration in Nursing
This practicum in nursing administration requires participation in a precepted experience in a health care setting related to a student's specialty area of clinical practice. A concurrent weekly seminar provides students an opportunity to utilize previously learned nursing and management concepts, theories, and techniques as they apply to the role of the nurse administrator. The purpose of the practicum is to provide students with increasing involvement in the operations of an organization. Students will develop the skills needed to analyze administrative situations, develop plans of action for the delivery of nursing care, and participate in their implementation and evaluation. Strategies for using research in nursing and management systems are explored.
Prerequisite: Nursng 611.
Seminar and field placement hrs by arrangement, 6 Credits

Nursng 698b
Practicum: Teaching in Nursing
Students are assigned to preceptors in a variety of settings and participate in classroom and clinical teaching. Students conduct clinical conferences, informal seminars, evaluation conferences and formal presentations. A weekly seminar focuses on issues related to planning, guiding, and evaluating learning experiences.
Prerequisite: Nursng 621.
Seminar and field placement hrs by arrangement, 6 Credits

Nursng 698c
Practicum: Clinical Concentration Area
Students are placed in a clinical setting with a preceptor. Clinical sites and preceptors may be in primary, secondary, or tertiary level care facilities and are selected on the basis of students' individual learning objectives. Seminar and field placement hrs by arrangement, 6 Credits

Nursing 698d
Practicum: Clinical Specialization in Nursing
Students participate in clinical experiences within a health care setting related to their area of specialty with a clinical nurse specialist as their preceptor. Students develop advanced clinical knowledge and practice competencies in the area of specialization, and skill in consultation/collaboration, patient/staff education and leadership/management. A weekly seminar focuses on issues related to the practice of the clinical nurse specialist and the application of theories, concepts, principles, and research to complex clinical situations.

Final Project

Nursng 699
Final Project
Under the supervision of a faculty advisor, the student will develop and implement a scholarly project.
Prerequisite: Nursng 603 and permission of graduate program director.
Hrs by arrangement, 3 Credits

Applied Physics (MS)

Faculty

Marvin M Antonoff, PhD, *Cornell University* •Theoretical Solid State Physics

Leonard A Catz, PhD, *Hebrew University of Jerusalem* •Experimental Atomic and Nuclear Spectroscopy

Edward S Ginsberg, PhD, *Stanford University* •Theoretical Elementary Particle Physics

Peter Gordon, PhD, *Brandeis University* •Quantum Measurement Theory

Donald H Lyons (Emeritus), PhD, *University of Pennsylvania* •Theoretical Solid State Physics

Harold P Mahon, PhD, *University of Washington*, •Energy Concerns •Experimental Magnetic Resonance •Physics of Semiconductors

Benjamin R Mollow, PhD, *Harvard University* •Theoretical Quantum Optics

Martin Posner, PhD, *Princeton University* •Biophysics •Cell Physiologic and Molecular Studies

D V G L N Rao, DSc, *Andhra University of India* •Experimental Laser Research •Nonlinear Optics

George Salzman, PhD, *University of Illinois* •Theoretical Research in General Relativity •Science for Humane Survival

Nareshchandra P Shah, PhD, *Stanford University* •Experimental Low Temperature Physics •Positron Annihilation

John R Shane, PhD, *Massachusetts Institute of Technology* •Experimental and Theoretical Solid State Physics

The Program and Facilities

The Applied Physics Program is intended primarily to prepare students for rewarding technological careers in industrial and government research laboratories, although it also provides strong preparation for subsequent training at the doctoral level. The program emphasizes the development of practical laboratory skills, through broad experience in experimental course work, and the mastery of the fundamental areas of theoretical physics at the level appropriate to the master's degree. Auxiliary skills in computer programming will also be developed. The program maintains a close interaction with industrial and government research laboratories in the greater Boston area.

Following the initial year of course work, qualified students may opt for an internship placement in an industrial research laboratory in the area. These paying positions provide further training and useful job experience in preparation for a technological career. Students who choose not to participate in an internship may complete the requirements for the master's degree through a supervised thesis project in the research laboratory of a member of the faculty.

The Physics Department is located in the large and well-equipped Science Building at the Harbor Campus. Among its resources are ample teaching and research laboratories, computing facilities, electronics and machine shops.

Research laboratories include facilities and equipment for:

- ultrasonic spin resonance
- low temperature studies
- quantum electronics
- nuclear spectroscopy
- millimeter-wave magnetic resonance
- biophysics

Degree Requirements

Each student must complete 1) seven courses, as follows: three one-semester laboratory courses, three one-semester theoretical courses, and one elective course, also in applied physics, to be chosen in consultation with his or her faculty advisor, totaling, at 4 credits each, 28 credits; and 2) either an internship at an off-campus research laboratory or an on-campus thesis project, either of which, when successfully completed, will earn credit equivalent to two courses. In exceptional cases, with prior approval of the program, a student can graduate with nine courses (substituting two additional courses for the internship or thesis requirement), which should include at least five courses from the applied area and three theoretical courses.

Admission Requirements

Please see the general statement of admission requirements for all programs on page 9 of this publication.

An applicant for admission to the Graduate Program in Applied Physics should present adequate evidence of his or her preparation and ability to do graduate work. Normally a bachelor's degree with a major in physics is required, though in certain instances other equivalent preparation may be acceptable. For applicants now or recently in college, the three letters of recommendation should come from professors in the field of physics or in closely related fields. For an applicant who has been working in scientific research laboratories for several years it may be more valuable to have one or more of the letters from senior scientists who are familiar with the applicant's work. It is also recommended, but not required, that an applicant plan a visit to the department for informal contacts with the faculty and to become acquainted with the research facilities. GRE scores are not required, but applicants, particularly international applicants, are encouraged to submit scores.

Courses

Physic 600
Electronic Instrumentation I—Analog
A lecture and laboratory course in analog electronics. Emphasis is placed on pragmatic and intuitive approaches to analog electronic circuit designs. A supervised independent project illustrating an aspect of basic analog electronics is required of each student.
Prerequsite: Graduate standing or permission of instructor.
2 Lect Hrs, 4 Lab Hrs, 4 Credits

Physic 601
Electronic Instrumentation II—Digital
A lecture and laboratory course to provide understanding of digital electronics and microprocessors. Emphasis is placed on digital logic components, digital circuit design, and techniques for incorporating microprocessors and microcomputers into laboratory experiments.
Prerequisite: Graduate standing or permission of instructor.
2 Lect Hrs, 4 Lab Hrs, 4 Credits

Applied Physics

Physic 602
Laser Optics Laboratory
A lecture and laboratory course to provide a working understanding of modern optics, lasers, and applications. Topics include optical resonators; solid state, gas and semiconductor lasers; tunable dye lasers; non-linear optics; and spectroscopy applications. Selected topics, which may vary from year to year according to the interests of the faculty and recent developments in technology, will stress practical instrumentation as well as relevant theory.
Prerequisite: Permission of instructor.
3 Lect Hrs, 4 Lab Hrs, 4 Credits

Physic 603
Nuclear Radiation Physics and Biophysics Laboratory
A laboratory-based course to illustrate the theory and experimental techniques utilized in nuclear radiation physics and biophysics. Topics include modes of production of nuclear radiation (charged particles, electromagnetic, neutrons), interaction of radiation with matter (including biological tissue), instruments and techniques for radiation detection and spectroscopy, radiation protection and safety, and the use of radioisotopes in physical, chemical, and biomedical research. Additional topics may include neutron activation analysis, X-ray fluorescence, the Mossbauer effect, radio immunoassay techniques utilizing radioisotopes, computer assisted tomography (CAT), and experiments on the interaction of radiation with tumor cells.
Prerequisite: Permission of instructor.
2 Lect Hrs, 4 Lab Hrs, 4 Credits

Physic 604
Cryogenics and Vacuum Technology
A lecture and laboratory course to provide a working understanding of modern practice in cryogenics and vacuum technology. Topics include low temperature properties of materials, gas purification, separation and liquefaction systems, instrumentation for measurement of temperatures and pressure and vacuum technology. Selected topics, which may vary from year to year according to the interests of the faculty and recent developments in technology, will stress practical instrumentation and applications.
Prerequisite: Permission of instructor.
2 Lect Hrs, 4 Lab Hrs, 4 Credits

Physic 605
Energy Laboratory
A lecture and laboratory course focusing on small scale technology and methods for improving the efficiency of energy use. Topics representing current activities of the faculty and student interests may include: methods for passive and active solar collection, computer based instrumentation techniques, energy auditing of industrial processes, alternative techniques for saving energy in residential buildings, and computer modeling of building energy performance and the effect of parametric modifications to the envelope, HVAC and other energy systems of commercial buildings.
Prerequisite: Permission of instructor.
2 Lect Hrs, 4 Lab Hrs, 4 Credits

Physic 606
Nuclear Reactor Physics
A lecture and laboratory course on the theory and operation of nuclear reactors for research and/or power generation. Associated topics in neutron physics include measurement of the velocity distribution of thermal neutrons in a nuclear reactor using a beam chopper; Bragg Diffraction of neutrons; measurement of thermal and epi-thermal neutron absorption cross-sections; neutron activation analysis. All reactor experiments are carried out at the MIT Research Reactor and include studies on subcritical neutron multiplication, control rod reactivity calibration from reactor period measurement, and reactor poisons. Theoretical topics include systematics of nuclear binding energies, theory of nuclear fission, and the theory of operation of homogeneous thermal nuclear reactors. Radiation safety topics include radiation dosimetry and radiation shielding.
Prerequisite: Physic 603 or permission of instructor.
2 Lect Hrs, 4 Lab Hrs, 4 Credits

Physic 608
Biophysical Instrumentation
A lecture and laboratory course on the application of microcomputers and microprocessor-based electronics to laboratory experiments in the biological and physical sciences. Emphasis is on techniques for interfacing the microcomputer to laboratory experiments for automated data acquisition, data reduction and analysis, information display and real-time control of experiments. Also listed as Biology 608.
Prerequisite: Graduate standing or permission of instructor.
2 Lect Hrs, 4 Lab Hrs, 4 Credits

Physic 609
Physics of Medical Imaging
General introduction to the physical principles involved in various medical imaging modalities, including X-ray imaging, X-ray tomography, radio-nuclide imaging, ultrasonic imaging, nuclear magnetic resonance imaging.
Prerequisite: Graduate standing or permission of instructor.
4 Lect Hrs, 4 Credits

Physic 610
Topics in Medical Imaging
This course focuses on an in-depth study of specific topics in the various medical imaging modalities.
Prerequisite: Physic 609 or permission of instructor.
4 Lect Hrs, 4 Credits

Physic 611
Theory of Classical Mechanics and Fluid Mechanics
Principles of classical mechanics. Generalized coordinates, Lagrangian and Hamiltonian formulations, variational principles, multiple periodic systems, continuous media, fluid mechanics.
Prerequisite: Permission of instructor.
4 Lect Hrs, 4 Credits

Physic 612
Electromagnetic Theory
A lecture course to develop electromagnetic theory and to treat various applications. Topics include Maxwell's equations in vacuum and in material media, electromagnetic theory of continuous media, reflection, refraction, diffraction and radiation of electromagnetic waves. Applications are selected from such topics as wave guides and resonant cavities, and magneto hydrodynamics and plasma physics.
Prerequisite: Permission of instructor.
4 Lect Hrs, 4 Credits

Physic 613
Quantum Mechanics, Atomic, and Molecular Physics
A lecture course on the fundamental principles and applications of the quantum theory of matter. Topics include bound systems (potential well harmonic oscillator, hydrogen atom), angular momentum, spin, identical particles, the periodic table, exchange forces, chemical bonding, linear vector spaces, perturbation theory. Such other topics as magnetic resonance, symmetry groups, and elementary particles are selected for study according to student and faculty interests.
Prerequisite: Permission of instructor.
4 Lect Hrs, 4 Credits

Applied Physics

Physic 614
Thermodynamics and Statistical Mechanics
A lecture course on the principles of thermodynamics and statistical mechanics. Topics include fundamentals of thermodynamics, first and second laws, thermodynamic potentials, phase transitions, classical kinetic theory, classical statistical mechanics, and quantum statistical mechanics. Applications of the principles are made to physical, chemical, and biological systems of special or current interest.
Prerequisite: Permission of instructor.
4 Lect Hrs, 4 Credits

Physic 615
Solid State Physics
The application of quantum mechanics to the theory of the solid state. Topics include periodic structures, lattice waves, band theory of solids, dynamics of electrons in solids and magnetic resonance. Some applications of the theory to semi-conductor devices are made.
Prerequisite: Permission of instructor.
4 Lect Hrs, 4 Credits

Physic 616
Mathematical Methods for Physicists
A course in intermediate mathematics with applications to analytical and quantum mechanics, and electromagnetic theory. Selected topics from vector analysis, tensor algebra, linear algebra and group theory, functions of a complex variable, second-order differential equations, Fourier series and transforms, calculus of variations.
4 Lect Hrs, 4 Credits

Physic 621
Physics of Semiconductor Materials
A lecture course on the physics of semiconductor materials. An understanding of the properties of semiconductor devices is related to the underlying physical principles of quantum mechanics and solid state physics. Topics include electrical, optical, and thermal properties of semiconductor materials; theory of transport, scattering, and recombination of free carriers; theory of p-n junctions.
Pre-or Co-requisites: Physic 613 and 615, or permission of instructor.
4 Lect Hrs, 4 Credits

Physic 622
Solid State Electronic Devices
A lecture and laboratory course on the physical principles and technology of semiconductor electronic devices and materials. The laboratory involves such techniques as the Hall effect, resistivity, and optical measurement, used to characterize the properties of semiconductor materials and devices—silicon and gallium arsenide substrates, bipolar and metal semiconductor junctions, VLSI and MOSFET devices. Topics may vary according to faculty interests and recent developments in the technology.
Prerequisite: Physic 621 or permission of instructor.
2 Lect Hrs, 4 Lab Hrs, 4 Credits

Physic 680
Readings in Physics
An opportunity for qualified graduate students to pursue advanced independent study of specialized topics in applied physics, with the guidance of a faculty member.
Prerequisite: Permission of the department.
Hrs by arrangement, 3-6 Credits

Physic 690
Projects in Physics
Qualified graduate students can pursue advanced independent projects in applied physics, with the guidance of a faculty supervisor.
Prerequisite: Permission of the department.
Hrs by arrangement, 3-6 Credits

Physic 694
Master's Internship
Internship in collaboration with industry in the greater Boston area. Requires a faculty supervisor in the Physics Department.
Prerequisite: Permission of the department.
Hrs by arrangement, 3-6 Credits

Physic 697
Special Topics in Applied Physics
The study of a particular topic of current interest in applied physics, such as photonics, nuclear reactor physics, semiconductor device physics, superconductivity, magnetic resonance.
Prerequisite: Permission of Instructor.
4 Lect Hrs, 4 Credits

Physic 699
Master's Thesis Research
Prerequisite: Permission of the department.
Hrs by arrangement, 3-6 Credits

Public Affairs (MS)

Faculty

Randy Albelda, (Department of Economics, Center for Woman in Politics and Public Policy), PhD, *University of Massachusetts Amherst* •State and Local Finance

Edmund Beard (John W McCormack Institute of Public Affairs, Political Science Department), PhD, *Columbia University* •Public Policy

Albert Cardarelli (John W McCormack Institute of Public Affairs), PhD, *University of Pennsylvania* •Sociology (Part-time)

Richard Delaney (Urban Harbors Institute), BA, *Harvard University* •Political Science (Part-time)

Robert Dentler, PhD (Emeritus) (Sociology Department), *University of Chicago* •Program Evaluation

Louis DiNatale (John W McCormack Institute of Public Affairs) JD, *University of Connecticut* •Politics (Part-time)

Sandra Elman (John W McCormack Institute of Public Affairs), PhD, *University of California at Berkeley* •Higher Education Administration and Planning (Part-time)

Mary Grant (John W McCormack Institute of Public Affairs), MS, *University of Massachusetts Boston* •Disability, Human Services, and Social Policy (Part-time)

Richard Hogarty (John W McCormack Institute of Public Affairs), PhD, *Princeton University* •State and Local Politics

Hubie Jones, (John W McCormack Institute of Public Affairs), MSW, *Boston University* •Public Education (Part-time)

Richard Manley (John W McCormack Institute of Public Affairs), AB, *University of Connecticut* •Massachusetts Government •Special Interest Groups (Part-time)

Ian Menzies (John W McCormack Institute of Public Affairs), *Royal Technical College, Glasgow* •Urban and Regional Issues (Part-time)

Robert Moran (John W McCormack Institute of Public Affairs), MBA, *Harvard University* •Public Budgeting and Finance (Part-time)

Mary O'Neil, EdD, *University of Massachusetts Amherst* •Organizational Behavior (Part-time)

Phillip L Quaglieri (Management Department), PhD, *Stevens Institute of Technology* •Human Resources Management

Michael Stone (College of Public and Community Service), PhD, *Princeton University* •Housing Policy

Raymond Torto (John W McCormack Institute of Public Affairs), PhD, *Boston College* •Economics •Public Finance

John Viola, MS, *University of Massachusetts Boston* •Public Management (Part-time)

The Program

The Master of Science in Public Affairs Program focuses on three broad goals: to provide students with a detailed, accurate picture of the political and economic environments on the national, state, and local levels; to give them needed historical and cultural perspectives on public life in the region; and to insure that they have the kind of technical, professional, analytical, and managerial skills needed to function effectively in the public realm. The program also includes intensive analyses of current policy issues, and intentionally concentrates on topics relating to metropolitan Boston, Massachusetts, and New England. Students are normally sought who are currently employed and who have had several years' experience in the public, private, and not-for-profit sectors, although students who have just completed an undergraduate degree are also considered. Those coming from the private sector usually hold or aspire to positions of authority in their organization's community relations, governmental affairs, or long-range strategic planning divisions. As most students are employed full time, the program operates on an evening and weekend schedule. In addition to the faculty members listed above, the program also draws on other faculty from throughout the University. Faculty members holding part-time status in this program are career professionals—strongly committed to sharing their knowledge and skills with those entering the field.

Curriculum

The program offers courses grouped in the following five areas:

1. The New England political and economic environments.
2. History, culture, and policy in New England.
3. Public management, organizational behavior, public budgeting and financial management, and program evaluation.
4. Analytical skills for policy makers.
5. Issue and policy analysis.

Degree Requirements

Thirty-eight graduate credits are required to complete the program. These credits are earned by completing nine three-credit courses distributed among the areas noted above, eight one-credit weekend intensive modules (two per semester for four semesters), and a final case study seminar which carries three credits.

The curriculum leading to the MS in Public Affairs is highly structured. Students are expected to proceed through the program as a group, taking all courses in the proposed sequence. In order to accommodate students who have already had graduate training in one or more of these areas, the program allows students to transfer up to two equivalent courses into the program. In addition, students may take up to two independent study courses in place of required courses that have been completed elsewhere.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9 and, at the back of this publication, the sections on "Graduate Admissions Application Instructions" and "Special Instructions for Applicants to Individual Programs".

Each student must submit a completed application form, three letters of recommendation, a résumé, Graduate Record Exam (GRE) or Miller Analogies Test (MAT) scores, and all undergraduate and graduate transcripts.

Courses

PbAff 601
The New England Political Environment
An introduction to the key contemporary systems that now constitute the environment in which legislative and executive policy-making and implementing processes work. This course is designed to provide a thorough understanding (in theory and practice) of: where, how, and by whom policy is made and implemented; how the process is/can be influenced; who pays and who benefits; and how to evaluate results (intended and actual). (Course offered in the fall only.)
3 Lect Hrs, 3 Credits

PbAff 602
The New England Economic Environment
This course introduces the student to the theory and tools of regional economies as a framework for analyzing policy issues. The economic and fiscal structure of Massachusetts is studied to identify the inner and outer workings of the Massachusetts economy vis-a-vis New England and the nation. The latter part of the course focuses on the economics of major issues facing policy makers. Such issues include public and private housing, health care costs, public pensions, fiscal and economic competitiveness and the economics of the capital city, Boston. (Course offered in the fall only.)
3 Lect Hrs, 3 Credits

Public Affairs (MS)

PbAff 603
Foundations of American Culture
This module begins with discussion of the culture concept and then concentrates on three traditions within our culture that have decisively shaped American values, behavior and institutions ever since the first settlements: Puritanism, a "liberal consensus" (belief in constitutional self-government and private property), and individualism. (Course offered in the fall only.)
Hrs by arrangement, 1 Credit

PbAff 604
A Changing American Culture
This module requires students to consider the changes taking place in the American family and life style, in the workplace, and in political behavior. How did policy making at the national and local levels contribute to the American record of spectacular growth? What were the human and environmental costs? To what extent can policy makers today expect to have to cope with cultural discontinuity? If post-industrial society is upon us, how will this affect the management of public and private institutions? (Course offered in the spring only.)
Hrs by arrangement, 1 Credit

PbAff 605
The Public Interest
This module is devoted to the philosophical assumptions underlying ideologies on the right (the negative state, free market, unlimited personal choice, etc.) and the left (the importance of community, the need for public power to promote the common good, etc.). The course discusses definitions of "the public interest" and tries to resolve them. (Course offered in the fall only.)
Hrs by arrangement, 1 Credit

PbAff 610
Public Management: Theories and Principles
This course explores the complex environment in which today's public managers must effectively function. It introduces students to the various theories of complex organizations, with a particular emphasis on those developments most relevant to public organizations. As part of the effort to relate theory to practice, students' own work experiences become a legitimate and important aspect of the subject matter. (Course offered in the spring only.)
3 Lect Hrs, 3 Credits

PbAff 612
Organizational Behavior
This course examines the nature of human behavior in public sector organizations as a function of the individual, the groups within which he or she interacts, and the organizational setting. Topics include such things as motivation, leadership, adaptation, socialization, conflict, and communication. (Course offered in the spring only.)
3 Lect Hrs, 3 Credits

PbAff 614
Human Resources Management
This course is designed to familiarize students with the major elements of human resources management in the public sector: personnel management practices and the practice of labor-management relations. The first half of the course examines the basic concepts of human resources management and the principles of planning and forecasting human resources needs. This part of the course examines such things as career planning and management, job design, pay systems, selection, training, and equal opportunity. The second half of the course explores the nature and history of labor-management relations. This half of the course focuses on the tactics and strategies of management and union representatives and the legal constraints on their behavior in: (1) the organization of public employee unions; (2) contract negotiation; and (3) contract administration and interpretation. (Course offered in the spring only.)
3 Lect Hrs, 3 Credits

PbAff 620
Analytic Skills for Policy Analysis I
Introduction to descriptive and inferential statistics, including hypothesis testing, analysis of variance, and correlation, with appropriate computer applications. (Course offered in the spring only.)
3 Lect Hrs, 3 Credits

PbAff 621
Analytic Skills for Policy Analysis II
Understanding the use and interpretation of sophisticated quantitative techniques, including multiple regression analysis and other multivariate statistical techniques, input-output analysis, linear programming, and simulation models. Review of current computer software packages for statistical analysis. (Course offered in the fall only.)
3 Lect Hrs, 3 Credits

PbAff 625
Public Budgeting and Financial Management
The public budgeting process in theory and practice. Students are introduced to contemporary approaches to public budgeting as well as to the difficulty of planning in the public sector, the dilemmas of choice and of priority setting, the results of incrementalism, and the nature of budgetary "rationality." In addition, the course examines the nature and scope of public financial management at the state and local level. It familiarizes students with state and local government financial reporting and accounting, current operating expenditures, techniques for evaluating capital expenditures and products. It explores borrowing and debt management, evaluation of municipal credit quality, managing cash assets and liquid securities, simulations and financial forecasting, and evaluating and controlling financial management practices. (Course offered in the spring only.)
3 Lect Hrs, 3 Credits

PbAff 645
Program Evaluation
This course explores the issues involved in and techniques applicable to evaluation of programs in the public sector. The course focuses on how to define programmatic objectives and output measures and how to develop evaluation methods and instruments. It further addresses how to implement such studies and demonstrate their worth. (Course offered in the fall only.)
3 Lect Hrs, 3 Credits

PbAff 651, 652, 653, 654, 655
Policy Workshops
A series of weekend workshops addressing public policy issues of concern to the Commonwealth.
1 Credit Each

PbAff 690
Case Study Seminar
Students in the MS in Public Affairs Program have the opportunity to complete a final project under the supervision of a faculty advisor. The project may be a case study of a public policy or significant piece of legislation which involves tracing its history, analyzing the political, economic, and social context in which it developed, identifying and examining the roles played by those who were instrumental in its development, and assessing its intended and actual impact. It may also be a critical examination of a policy issue confronting a student at his or her place of employment. While completing their case study project, students participate in a weekly seminar that focuses both on the substantive issues under examination and on case study methodology. (Course offered in the spring only.)
Hrs by arrangement, 3 Credits

PbAff 695, 696
Independent Study
Advanced course of independent readings under the guidance, and subject to the examination of the instructor. Areas and to pics according to student need.
Hrs by arrangement, 1 Credit

PbAff 697
Special Topics in Public Affairs
An advanced course offering intensive study of selected topics in public affairs. Course content varies according to the topic, and will be announced prior to registration.
3-6 Lect Hrs, 3-6 Credits

Public Policy (PhD)

Faculty

Randy Albelda (Department of Economics, Center for Women in Politics and Public Policy), PhD, *University of Massachusetts Amherst* •Taxation •Microeconomics

Barry Bluestone (Department of Political Science, John W McCormack Institute of Public Affairs), PhD, *University of Michigan* •Political Economy •Quantitative Methods •Labor Policy

Elizabeth Bussiere (Department of Political Science), PhD, *Brandeis University* •Constitutional Law •Civil Liberties •Law and Public Policy

James T Campen (Department of Economics), PhD, *Harvard University* •Taxation and Public Expenditures •State and Local Economic Policy •Financial Institutions

Jeremiah Cotton (Department of Economics), PhD, *University of Michigan* •Political Economy of Black America •Economics of Social Welfare

Thomas Ferguson (Department of Political Science), PhD, *Princeton University* •Public Policy •Government Studies

Phyllis Freeman (College of Public and Community Service), JD, *Northeastern University* •Law •Public Policy

Jemadari Kamara (College of Public and Community Service), PhD, *University of Michigan* •Community Economic Development •Comparative Development Policy

David Levy (Department of Management), DBA, *Harvard University* •Organizational Theory •International Business •International Political Economy

Catherine Lynde (Department of Economics), PhD, *University of California, Davis* •Macroeconomic Policy •Productivity Growth •Quantitative Methods

Michael Massagli (Center for Survey Research), PhD, *University of Wisconsin* •Research Methods •Demography •Social Stratification (Part-time)

David Matz (College of Public and Community Service), JD, *Harvard University* •Conflict Resolution •Mediation and Negotiation

Edwin Melendez (Department of Economics, Mauricio Gaston Institute for Latino Community Development and Public Policy), PhD, *University of Massachusetts Amherst* •Economic Development •Labor and Poverty

Robert Moran (John W McCormack Institute for Public Affairs), MBA, *Harvard University* •Public Managerial Control (Part-time)

Jennifer Radden (Department of Philosophy), PhD, *Oxford University* •Ethics and Moral Philosophy

Meredith Ramsay (Department of Political Science), PhD, *University of Maryland* •American Government •Public Policy •Economic Development Policy

Mary Stevenson (Department of Economics), PhD, *University of Michigan* •Urban Economics •Economics of Gender

Michael Stone (College of Public and Community Service), PhD, *Princeton University* •Planning and Public Policy Theory •Housing •Urban Political Economy

David Terkla (Department of Economics), PhD, *University of California, Berkeley* •Environmental and Marine Resource Economics •Regional Economic Development •Public Finance

Carole C Upshur (College of Public and Community Service, Center for Social Development and Education), EdD, *Harvard University* •Policy and Program Development •Human Services and Education •Health Care Policy

James Ward (Department of Political Science), PhD, *Harvard University* •Political Theory •Public Policy

Paul Watanabe (Department of Political Science, Institute for Asian American Studies), PhD, *Harvard University* •Foreign Policymaking Process •American Political Behavior •Ethnic Politics

Ann Withorn (College of Public and Community Service), PhD, *Brandeis University* •Social Welfare History and Policy •Feminist Theory

The Program

UMass Boston's PhD Program in Public Policy is designed to produce public policy developers and analysts who are community-conscious, politically astute, and technically sophisticated. Its graduates can expect to assume top-level professional positions in state and local government, the federal government, community organizations, and both public and private sector policy research institutions. Program graduates will be well prepared, through study in traditional academic areas, for teaching and research positions at colleges and universities, particularly offering undergraduate or graduate programs in policy studies and public affairs.

The program particularly emphasizes

- solid grounding in political economy,
- appropriate attention to theory, applied principles, and technical skills,
- interdisciplinary study, and
- multi-cultural approaches to public policy.

Degree Requirements

The PhD Program in Public Policy involves two years of full-time course work (first and second years) followed by two years of part-time course work complemented by an internship (third year) and dissertation preparation (fourth year). Most students should complete the entire program, including the dissertation, in four to five years.

Requirements include

- Completion of eight core courses including a one-semester practicum in policy planning and program development; five research and quantitative methods laboratory courses; and five elective courses.
- Successful performance in a qualifying examination taken at the end of the second year.
- Completion during the third year of an internship in state and local government, a community organization, or a research agency.
- Completion of a doctoral dissertation.

Required Courses

The core courses, taken during the first two years of the program, acquaint students with the basics of political economic thought and public policy analysis. They also introduce students to applied economic reasoning and political institutions at the federal and local government levels. Core courses include

PubPol 601-602 (Political Economy I and II)

PubPol 611-612 (Foundations of Public Policy I and II)

PubPol 621-622 (Economics for Policy Analysis I and II)

PubPol 698 (Policy Planning and Program Development)

PubPol 740 (Political Institutions)

PubPol 895 (Internship in Public Policy)

PubPol 899 (Dissertation Research)

PubPol 604, 605, 630, 730, 801 (Research and Quantitative Methods Courses)

Electives

During the first three years of the program students are expected to enroll in five elective courses which focus on public policy in particular subject areas. Not all courses are available every semester. Courses offered as electives cover a variety of topics, including

PubPol 741 (Organizational Theory and Public Management)

PubPol 742 (Public Budgeting and Control)

PubPol 743 (Social Welfare Policy)

PubPol 744 (Community Political and Economic Development)

PubPol 745 (Advanced Quantitative Methods)

Public Policy

Additional electives may be offered in the following fields:

Children, Youth, and the Family
Education Administration
Elder Affairs
Environmental Policy
Financial Institutions
Health Care
Housing
Industrial Policy
Labor-Management relations
Law and Public Policy
Marine and Coastal Studies
Mental Health
Program Evaluation
Public Finance
Regional Economic Development
Regulatory Policy
Urban Development
Women and Public Policy

Qualifying Examination

A comprehensive examination must be taken before the third year of the program. It is given in late August to permit students to study for it during the summer months between the end of the second year and the beginning of the third. The extensive examination covers economic and political theory, the fundamentals of public policy analysis, and the fundamentals of research methods and quantitative analysis.

Internships

The third year internship gives the student opportunities to put public policy skills into practice by working half-time in a state or local government agency, in a quasi-public or non-profit organization, or (in some cases) in the private, for-profit sector. In select cases, the internship can be satisfied by preparing a major paper evaluating prior or current policy work undertaken by a student.

Dissertation

One of the most important requirements of the program is the completion of a dissertation: an original empirical project that makes a substantive contribution to knowledge about public policy. The student's dissertation work is supervised by a primary advisor and a doctoral committee consisting of at least three faculty members. The committee is responsible for approving the thesis proposal, overseeing the data collection and analysis, and reviewing the written draft of the dissertation. The completed dissertation must be approved by the program's doctoral committee, and an oral defense must be successfully presented.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9 and, at the back of this publication, the sections on "Graduate Admissions Application Instructions" and "Special Instructions for Applicants to Individual Programs".

Students are admitted to the Public Policy Program to work toward the PhD degree only; there is no terminal master's degree. Applications are due in the UMass Boston Graduate Admissions Office by February 1, for enrollment in the following September. There are no spring semester admissions. Applicants must submit the following:

- A completed UMass Boston graduate admissions application form, which appears at the back of this publication.
- An autobiographical sketch.
- A personal statement about the applicant's interests and reasons for applying to the program.
- Three letters of recommendation, at least two of which should come from individuals who can assess the applicant's academic preparation for advanced graduate work.
- Official transcripts of all prior academic work, including evidence of a bachelor's degree from an accredited institution.
- An official report of scores on the general aptitude (verbal, quantitative and analytic) sections of the Graduate Record Examination (GRE).

The admissions committee of the program will schedule interviews for all finalists, once applications have been reviewed. Interviews are considered an important part of the application process, and whenever possible are held on campus.

Courses

PubPol 601
Political Economy I
This is the first term of a two-semester multidisciplinary course sequence exploring the basic philosophical, psychological, political, and economic underpinnings of public policy development, through a series of discrete units. It is taught primarily from a historical and theoretical perspective. Major units include the theory of scientific inquiry; views of human nature; the history of ideologies and institutions; theories of freedom and justice; the conservative, liberal, and radical paradigms in social science; and, finally, a synthesis of paradigms regarding the role of the state, race, ethnicity, gender, and class.
3 Lect Hrs, 3 Credits
Ms Albelda, Mr Bluestone, Mr Melendez, Ms Radden

PubPol 602
Political Economy II
A continuation of PubPol 601.
3 Lect Hrs, 3 Credits

PubPol 604
Statistics I
A solid grounding in research methods is central to the Public Policy Program. This course is the first in a five-semester sequence of quantitative and research methods "laboratories" designed to steadily increase student sophistication in a broad range of statistical methods and other analytic techniques. It begins with a basic review of graphical analysis and descriptive statistics. Subsequent topics include the fundamentals of probability theory, basic statistics and the logic of hypothesis testing. The course concludes with an introduction to the basic linear model. As is true for all of the methods labs, the course makes frequent use of case studies, examples, and computers.
3 Lect Hrs, 3 Credits

PubPol 605
Statistics II
Second term of the quantitative and research methods sequence. This statistics lab course is devoted almost exclusively to a study of multiple regression and time series analysis methods, focusing on regression diagnostics and remedies. Topics include weighted least squares and non-linear transformations, the special nature of dummy variables, and the particular problems associated with serially correlated errors in time series models.
3 Lect Hrs, 3 Credits

PubPol 611
Foundations of Public Policy Analysis I
This is the first term of a two-semester course that makes use of both theory and case study to examine various approaches to public policy analysis, evaluation, and implementation. The course seeks to introduce the student to the general methods used in formulating and analyzing policy. Major units in this course cover the nature and limits of applied social science, the determination of policy goals and objectives, qualitative versus quantitative analysis, the measurement of policy effectiveness and efficiency, the forecasting of policy alternatives, risk analysis, the politics of policy analysis, bargaining and negotiation theory, policy monitoring, policy evaluation approaches, comparative public policy, intergovernmental relations, regulatory environments, and ethical issues in policy analysis.
3 Lect Hrs, 3 Credits
Ms Upshur, Mr Stone, Mr Ward

Public Policy

PubPol 612
Foundations of Public Policy Analysis II
A continuation of PubPol 611.
3 Lect Hrs, 3 Credits

PubPol 621
Economics for Policy Analysis I
This is the first term of a two-semester course sequence devoted to exploring the basic economics of policy analysis from both a microeconomic and macroeconomic perspective. The course is taught from both a theoretical and case study perspective. As with traditional graduate economics offerings, the micro/macro sequence begins with the foundations of household and firm behavior. Units in this course include production decisions; the theory of consumer choice; market structures; discrimination; the simple analytics of welfare maximization; public sector economics including expenditure analysis, taxation, and regulation; theories of externalities and public goods; tax incidence; and the principles of cost-benefit analysis. The macroeconomic units include theories of income determination and income distribution and the problem of unemployment; the workings of financial markets and interest rate structures; the impact of macroeconomic policy on state and local government; and the constraints placed on domestic policy as a result of the internationalization of the economy.
3 Lect Hrs, 3 Credits
Mr Campen, Mr Cotton, Ms Lynde, Ms Stevenson

PubPol 622
Economics for Policy Analysis II
A continuation of PubPol 621.
3 Lect Hrs, 3 Credits

PubPol 630
Research Methods I
The third course in the five-semester "laboratory sequence" in quantitative and research methods. This course provides the conceptual and practical foundation for policy research and program evaluation. Students develop an understanding of the fundamental concepts and problems involved in designing research.
3 Lect Hrs, 3 Credits

PubPol 698
Policy Planning and Program Development
This course is taught as a practicum. Students work in teams providing professional services to public and non-profit agencies. The course focuses on the acquisition and application of techniques for policy planning and program development, both qualitative and quantitative, technical and political. The course begins with an examination of various models of planning: comprehensive rationality, its limits and counterpoints; synthetic methods; and strategic planning. The course then covers —through participation in carefully selected consulting projects—techniques of problem definition; goal setting; developing, evaluating and selecting programmatic options; predicting social, economic, and fiscal impacts; designing and testing pilot programs; implementation planning; and developing models and methods for public participation and constituency development. Ethical issues arising from policy planning and implementation are also considered.
3 Lect Hrs, 3 Credits
Ms Freeman, Mr Stone

PubPol 730
Research Methods II
Fourth in the five-semester "laboratory sequence" in quantitative and research methods. This course assists students to become critical consumers of policy research and to apply specific quantitative and qualitative techniques in policy analysis. Both generic and policy-specific aspects of various techniques are discussed and demonstrated through background readings and examination of concrete policy reports. Students are required to apply and present analyses in their field of interest.
3 Lect Hrs, 3 Credits

PubPol 740
Political Institutions
This course is designed to introduce students to a number of issues in the study of the American political system at the national, state, regional, and local levels. The readings bring together research and analysis concerning specific topics and theoretical reflection concerning conceptual and analytic approaches. The course's objectives are to show how a variety of theoretical, methodological, substantive, and political presuppositions condition research and analysis; and to encourage students to acquire both substantive knowledge of the American political system and a critical attitude toward ways in which social scientists produce this knowledge. Both the subject matter and the ways in which it is analyzed are characterized by multiple conditions and contexts. Awareness of these relations is crucial for policy analysts.
3 Lect Hrs, 3 Credits
Mr Ferguson, Mr Ward

PubPol 741
Organizational Theory and Public Management
Organizations provide the context in which public policy is developed and implemented. An understanding of organizational theory is therefore critical for policy analysts and public managers. The course provides a foundation in organizational theory and introduce current trends and issues such as participative management, community responsiveness, market-based policies, diversity, and ethics in management. The course makes use of both case studies and student experience.
3 Lect Hrs, 3 Credits
Mr Levy

PubPol 742
Public Budgeting and Control
This course provides the student with an understanding of the broad significance of both the budget document and the budgeting and control process in the design and implementation of public policy. The primary emphasis is not on the technical features of the budget but instead on the function and power of the budgeting and control process as a tool for the public policy designer, analyst or manager.
3 Lect Hrs, 3 Credits
Mr Moran

PubPol 743
Social Welfare Policy
This course is a study of social welfare policy narrowly defined as the alternative plans, decisions, choices and actions of the public sector that have a direct impact on the material welfare of socially and economically disadvantaged citizens by providing them with services and/or income. The central core of programs included under this definition are social insurance, public assistance, health and housing services.
3 Lect Hrs, 3 Credits
Mr Cotton

Public Policy

PubPol 744
Community Political and Economic Development
This course explores the complex relationship between economic development policy and sociocultural and political processes at the community level. The readings are presented in three parts. The first examines global trends and local economic conditions. The second utilizes a selection of short case studies to survey a range of local policy responses to the pressures of economic decline. These studies will provide an empirical basis for evaluating the explanatory adequacy and policy implications of the theories presented in part one. The third introduces additional case studies and readings analyzing the role of grassroots organizations, leadership, and populist movements in shaping alternative approaches to economic development. Finally, the course explores emerging issues in the field.
3 Lect Hrs, 3 Credits
Ms Ramsay

PubPol 745
Advanced Quantitative Methods
The goal of this course is to extend the student's knowledge of statistical techniques for use with social science data beyond that acquired in PubPol 604 and 605. The course seeks to deepen the student's understanding of multiple regression estimation, by further examination of problems associated with choosing a proper model and estimating its parameters. As with other methods labs, the course has a strong practical bias, with emphasis on statistical and econometric theory kept to a minimum.
3 Lect Hrs, 3 Credits

PubPol 791
Independent Study
Students may choose to work independently with a faculty member on a special topic not available in the instructional program. Students must make individual arrangements with faculty members regarding the amount of individual supervision to be provided and the outcome of the independent study.
Hrs by arrangement, 3 Credits

PubPol 801
Dissertation Seminar
Fifth in the five-semester "laboratory sequence" in quantitative and research methods. The course is divided into the two broad areas of research and writing, a distinction that is only conceptual: in reality it is very difficult to divorce one from the other: Good research is the product of both solid reasoning and clear communication. The research aspect of the course covers defining a proposal and a thesis, selecting a topic, literature search and data collection, alternative methodologies, and selecting an advisor and a thesis committee. The writing aspect covers organizing research materials and developing an outline, overcoming writer's block, and professional and impact writing.
3 Lect Hrs, 3 Credits
Mr Melendez and Staff

PubPol 891
Public Policy Colloquium I
This course is the first in a two-semester sequence; one of its goals is the widest possible participation of both students and faculty. This course functions as a seminar for discussion of ongoing research by faculty and students.
3 Lect Hrs, 3 Credits

PubPol 892
Public Policy Colloquium II
A continuation of PubPol 891.
3 Lect Hrs, 3 Credits

PubPol 895
Internship in Public Policy
Students carry out supervised internships in such settings as state and local governments, quasi-public and non-profit organizations, and some areas of the private sector. Students are given credit for their internships on the basis of a detailed research or evaluation paper written about their experience.
Hrs to be arranged, 12 Credits
Ms Withorn and Staff

PubPol 899
Dissertation Research
Research conducted under faculty supervision that leads to the presentation of a doctoral dissertation.
Hrs by arrangement, 1-12 Credits

School Psychology (MEd, CAGS)

Faculty

Marianne Bender-Powers, EdD, *Boston University* •Seminar in School Psychology (Part-time)

Vincent A Cristiani, EdD, *Boston University* •Supervision of Practica/Internships

Marian J Ego, EdD, *Harvard University* •Supervision of Practica •Internships (Part-time)

Peter C Entwistle, PhD, *Boston College* •Neuropsychology •Intelligence Assessments •Seminar in School Psychology (Part-time)

Virginia S Harvey, PhD, *Indiana University* •Program Evaluation •Issues in School Psychology •Intelligence Testing

Alan E Hastings, PhD, *Western Colorado University* •Psychometric Techniques •Personality Assessment •Intelligence Testing (Part-time)

Varda Konstam, PhD, *Fordham University* •Techniques of Diagnostic Interview

Gayle L Macklem, MA, *Smith College* •Intelligence Testing (Part-time)

Samuel E Toto, EdD, *Boston University* •Psychoeducational Prescriptions •Issues in School Psychology (Part-time)

The Combined MEd and Certificate of Advanced Graduate Study (CAGS) Program

The program trains graduates to serve as certified school psychologists in schools or clinical settings, and is particularly appropriate for experienced teachers and others in professionally related fields of specialization. It also prepares applicants seeking entry level admission into the profession. The program is designed to meet Massachusetts state requirements as well as national certification standards, and is both state and nationally program-certified. Graduates of the program generally serve as members of core evaluation teams, offering counseling, diagnostic, and treatment services for pupils with emotional, learning, physical, intellectual, or educational problems. Certified school psychologists also provide assistance and consultative services to teachers, administrators, other professionals and the general community. While most school psychologists practice in educational settings, including public and private schools, some are employed in nursery and day schools, colleges and universities, rehabilitation centers, hospitals, mental health clinics, state and federal agencies, child guidance centers, penal institutions and research laboratories. A number of school psychologists can also be found serving their communities in private practice. The training program in school psychology offered at the University of Massachusetts Boston satisfies the standards for licensure as an educational psychologist in the allied mental health and human services professions. Faculty members holding part-time status in this program are career professionals—strongly committed to sharing their knowledge and skills with those entering the field.

Degree Requirements (MEd/CAGS)

Candidates for the combined MEd and CAGS in School Psychology are required to complete all course work and other academic requirements for Massachusetts State Department of Education certification and national certification as a school psychologist. Certification standards in both categories are mandatory, with no exceptions permitted. The requirements include at least sixty credits of approved course work, plus completion of two 600 clock-hour practicum/internships, for a total of 1200 hours of supervised field experience. Candidates must also pass a comprehensive examination, and satisfy all other graduate and degree requirements as specified below.

On completion of forty-eight credits of approved course work in the program and the passing of the written comprehensive, the matriculated student will be awarded the MEd degree. On completion of the entire sixty-six credit program, which includes the year-long, full-time practicum/internships, the candidate will be awarded the Certificate of Advanced Graduate Study in School Psychology. Completion of the MEd degree and the first of the two required 600-hour full-time practicum/internships will qualify a candidate for provisional certification as a school psychologist in Massachusetts. Upon successful completion of all other program requirements and the second 600-hour full-time practicum/internship, the candidate will be eligible for full certification as a school psychologist.

The following required courses are offered in the related fields of counselor training and special education (please consult the counselor training and special education sections of this publication for descriptions of these courses):

Coun 601, 605, 607, 608, 614, 615, 616, 622 (or 653);

SpEd 621, 624, 629.

Admission Requirements (MEd/CAGS)

Please see the general statement of admission requirements for all graduate programs on page 9 and, at the back of this publication, the section on "Graduate Admissions Application Instructions".

The School Psychology Graduate Committee will review all applications and recommend admission for those applicants who present evidence of their ability to achieve graduate work with distinction. Such evidence normally will include

1. An undergraduate transcript with at least an overall grade point average of 2.75, and at least a 3.0 average in all psychology courses.
2. A satisfactory score on the Miller Analogies Test (MAT) or the Graduate Record Examination (GRE) Combined Aptitude Test. Please note: A test score is not required if the applicant holds an advanced degree from a US university.
3. Three letters recommending the candidate's admission to the program.
4. A letter of intent, stating the applicant's professional objectives.
5. A personal interview.

School Psychology

The Certificate of Advanced Graduate Study (CAGS) Program

The CAGS in School Psychology Program can be undertaken separately, as advanced professional graduate study in school psychology, beyond the master's degree level. The program is designed to enable individuals who have advanced degrees to enhance their professional competencies or satisfy state and national certification requirements. The program is particularly suited to those with a master's or doctorate in a related field, such as counseling, special education, teacher education, or clinical psychology, as well as to those who have completed a master's level program in school psychology.

A minimum of thirty credits of course work, a practicum/internship or directed study, and the satisfaction of state and national certification standards are required for the CAGS in School Psychology. Candidates who do not have state or national certification as school psychologists may therefore be required to complete additional course work, as well as any practicum/internship experiences needed to complete the 1200 clock hours of supervised field work required for state and national certification.

Admission Requirements (CAGS)

Please see the general statement of admission requirements for all graduate programs on page 9 and, at the back of this publication, the section on "Graduate Admissions Application Instructions".

The senior program advisor and the School Psychology Graduate Committee will review all applications and recommend admission for those applicants who present evidence of their ability to perform advanced graduate level work with distinction. Such evidence will normally include

1. A distinguished graduate transcript, indicating completion of at least a Master's degree in school psychology or a related field of study, and an overall average of at least 3.0 in all graduate courses.
2. Official transcripts of all previous college work, undergraduate and graduate, from regionally accredited colleges and universities.
3. Three letters of recommendation addressing the candidate's ability to succeed in advanced graduate training in school psychology. At least two of the letters, if possible, should be from instructors in the applicant's most recent master's degree or doctoral program.
4. Submission of scores of the Miller Analogies Test or the Graduate Record Examination, if the most recent master's or doctoral degree was earned longer than five years before the date of the receipt of the application form by the Admissions Office. (No entrance test or examination is necessary if the most recent degree was earned less than five years before the Admissions Office's receipt of the application form.)
5. A personal interview with the senior program advisor.
6. Applicants who have earned a master's degree at UMass Boston may request that documents used in support of their application to those programs be used to support their applications to this program.

Certification Requirements

The following courses are required for state and national certification as a school psychologist:

Coun 601, 605, 607, 608, 614, 615, 616, and either 622 or 653
SpEd 621 and 624, and either SpEd 629 or SchPsy 606
SchPsy 601, 602, 603, 604, 605, 607, 610, 691/I, 691/II
(60 credits)

For descriptions of Counselor Training and Special Education courses, please see those sections in this publication.

The following practica/internships are required, as well:

SchPsy 698/I, 698/II
(6 credits)

Courses

SchPsy 601
Issues in School Psychology
The course includes a study of the professional identity and function of the psychologist in the public school setting. An intensive analysis of the philosophical, technical, and administrative issues is conducted. Organization and operation of schools, federal and state educational laws, ethical issues and dilemmas, APA standards, and multi-pluralistic assessments are explored in depth. The most current issues in the field are discussed.
3 Lect Hrs, 3 Credits
Mr Toto, Ms Harvey

SchPsy 602
Individual Intelligence Testing I
Focuses on administration and scoring of individual intelligence tests, especially the Wechsler Scales, the K-ABC, the McCarthy Scales, and the Stanford-Binet. Emphasis is placed on a psychoeducational model of assessment. Ethical considerations and the dangers of misuse are considered. Students are responsible for procuring test kits and equipment. Opportunities to share feedback about administration experiences will be provided. A minimum of twenty (20) tests must be administered. A pre-practicum/internship field component is required. (Course offered in the fall only.)
3 Lect Hrs, 3 Credits
Ms Harvey, Mr Hastings, Ms Macklem

SchPsy 603
Individual Intelligence Testing II
This is a continuation of SchPsy 602. It focuses on the interpretation, remediation, and prescriptions involved in individual intelligence assessments, emphasizes a psychoeducational model of interpretation, and considers the place of these instruments in a total evaluation of the individual. Protocol interpretations are required. A minimum of four protocols must be prepared along with psychological reports which include interpretive aspects of assessments and remediations, strategies, and prescriptions. (Course offered in the spring only.)
Prerequisite: SchPsy 602.
3 Lect Hrs, 3 Credits
Ms Harvey, Mr Hastings, Ms Macklem

SchPsy 604
Personality Assessment I
This course explores devices of a projective and semi-projective nature, especially those instruments applicable to school psychology and mental health clinics. The projective aspects of the Wechsler Scales, surface projectives, sentence completion, and draw-a-person are investigated. A pre-practicum/internship field component is required. (Course offered in the fall only.)
3 Lect Hrs, 3 Credits
Mr Hastings, Ms Macklem

School Psychology

SchPsy 605
Personality Assessment II
This course explores devices of a projective and semi-projective nature, especially those instruments applicable to school psychology and mental health clinics. The Bender Gestalt, the Thematic Apperception Test, the Children's Apperception Test, and the MMPI are studied in depth. A pre-practicum/internship field component is required. (Course offered in the spring only.)
Prerequisite: SchPsy 604.
3 Lect Hrs, 3 Credits
Mr Hastings, Ms Macklem

SchPsy 606
Techniques of the Diagnostic Interview
This course introduces the use of the clinical interview in both clinical and educational settings. There is an emphasis on the integration of interview data with multiple data sources, including supplementary behavior observations, psychological test data, and history, and the use of the interview as a springboard for decision-making regarding the need for further diagnostic assessment and/or educational and treatment planning. A pre-practicum/internship field component is required.
3 Lect Hrs, 3 Credits
Ms Harvey, Ms Konstam

SchPsy 607
Psychoeducational Prescriptions
Attention is focused on the techniques of synthesizing psychological information into an effective, individually appropriate educational plan. The course uses a case-study approach to examine pre-intervention strategies, the use of remediation and compensation, and the development of a learning style and service delivery models.
3 Lect Hrs, 3 Credits
Ms Harvey, Mr Toto

SchPsy 608
Introduction to Rorschach
This course introduces the student to the theoretical and empirical foundations of the Rorschach Tests, and provides experience in administering, scoring and interpreting the test with children and adults in clinical and non-clinical settings. Students in this course are expected to take SchPsy 609 (Advanced Rorschach) as well. Both courses are electives open only to individuals already certified or licensed.
3 Lect Hrs, 3 Credits

SchPsy 609
Advanced Rorschach
A continuation of SchPsy 608. This course provides more advanced work in Rorschach testing and interpretation.
Prerequisite: SchPsy 608.
3 Lect Hrs, 3 Credits

SchPsy 610
Neuropsychological Theory and Practice in Education
This course examines neuropsychology, the study of the brain and nervous system functions, in relation to adaptive behavior and learning, from a developmental viewpoint. The course looks at organismic versus specific localization theories about normal and dysfunctional conditions that affect moving, sensing, perceiving, assimilating, recalling, and expressing through diagnostic-prescriptive studies. Participants study learning abilities and disabilities from a neuropsychological perspective, which allows them to apply the analysis of learning styles to the implementation of individual instruction methods and education plans.
Prerequisites: Coun 608, SchPsy 602, SchPsy 603.
3 Lect Hrs, 3 Credits
Mr Entwistle

SchPsy 691 (I and II)
Seminar in School Psychology
These two seminars are taken in conjunction with the two required practica/internships in School Psychology (SchPsy 698 I and II). They include lectures and discussions about state and national certification requirements, case studies, assessments and 766 evaluations, legal and ethical concerns, cultural diversity factors, and general topics related to the practicum/internship experience. Practicum/internship report and daily log required.
3 Lect Hrs, 3 Credits for Each
Ms Bender-Powers, Mr Cristiani, Mr Entwistle

SchPsy 696
Independent Study in School Psychology
Research and reading in an area of school psychology chosen by the student and approved by the instructor. Open only to graduate degree and certificate candidates who are matriculated in the School Psychology program. Prerequisite: Permission of the senior program advisor.
Hrs by arrangement, 3-6 Credits
Mr Cristiani

SchPsy 697
Special Topics in School Psychology
Intensive study of a selected topic in school psychology.
Prerequisites: Permission of the departmental curriculum committee and approval of the senior program advisor.
3 Lect Hrs, 3-6 Credits

SchPsy 698 (I and II)
Practicum/Internship in School Psychology I
Full time practicum/internship placements, each consisting of at least 600 clock hours of full-time field work experience at both the elementary and secondary school levels, under the supervision of a practicing certified school psychologist. The combination of these two Practica/Internships satisfies the 1200 clock hours of supervised field work that are required for state and national certification. The first of the practica/internships must be in an approved school setting. The second may also be in a school setting, but it may be instead in a clinical setting if desired, under the supervision of a licensed or certified psychologist. University supervision and the approval of the senior program advisor are required.
3 Lect Hrs, 3 Credits for Each
Mr Cristiani, Ms Ego, Ms Harvey

Applied Sociology (MA)

Faculty

Paul Benson, PhD, *University of North Carolina, Chapel Hill* •Social Psychiatry •Medical Sociology •Deviance

Harry Brill, PhD, *University of California, Berkeley* •Social Policy •Sociology of Unemployment •Urban Sociology

Ann Cordilia, PhD, *University of Chicago* •East Asian Studies •Alcohol Addiction

Xiaogang Deng, PhD, *State University of New York, Buffalo* •Deviance •Criminology •Research Methodology

Robert A Dentler (Emeritus), PhD, *University of Chicago* •Evaluation Research •Social Policy •Social Problems •Sociology of Education

Estelle Disch, PhD, *Tufts University* •Gender •Human Services •Deviance

Gerald R Garrett, PhD, *Washington State University* •Alcohol Addiction •Criminology •Social Deviance and Control

Susan Gore, PhD, *University of Pennsylvania* •Medical Sociology •Research Methodology

Glenn Jacobs, PhD, *Temple University* •Race and Ethnic Group Relations •Social Problems •Sociological Theory

Lawrence Kamara, PhD, *Boston University* •Family •Sociological Theory •Sociology of Aging

Richard Kronish, PhD, *University of Wisconsin, Madison* •Social Policy •Social Deviance and Control •Sociology of Work

Calvin J Larson, PhD, *University of Oregon* •Criminology •Sociological Theory

Siamak Movahedi, PhD, *Washington State University* •Social Psychiatry •Research Methodology •Social Statistics

Russell K Schutt, PhD, *University of Illinois, Chicago* •Sociology of Law •Homelessness •Sociology of Organization •Research Methodology

Sharon Stichter, PhD, *Columbia University* •Modernization •Women and Development •Family

The Program

The Master of Arts Program in Applied Sociology, through courses and internships, provides students with skills and knowledge directly applicable to a host of professional settings, including criminal justice agencies, community and human service organizations, health care institutions, alcohol and substance abuse treatment programs, and applied research firms. Course work in core areas such as social policy analysis, complex organizations, and research methods provides students a broad understanding of the relevance of sociology in examining and treating complex social problems as well as with specific job skills useful in applied settings. The program offers specialized course work in a number of areas including criminology/corrections, health care, alcohol/substance abuse, and intergroup relations. This range of possibilities enables students to pursue specialized study according to their interests and career objectives. An important feature of the program is its required field work—an internship that reflects the academic and professional interests of the student. Internship placements are generally in public and private agencies either service or research oriented. The internship, in addition to affording the student an opportunity to develop his or her skills in a professional setting, helps provide the student with a solid understanding of the relationship between theory, research, policy, and practice.

The program seeks applicants whose career and academic interests are oriented toward applied areas. Graduate seminars are scheduled in the late afternoon and evening hours to accommodate those with employment and other obligations. Full-time students can complete requirements for the MA in two years. Part-time students will be admitted to the program if they meet graduate admissions criteria. All students admitted into the program must complete degree requirements within five years. Non-matriculated students who hold a BA degree may enroll in selected courses (and not more than a total of two), provided they demonstrate suitable qualifications for post-graduate study to the program director and instructor.

Facilities

A range of computational resources is available to students in the program. They have direct access through over 200 terminals to a cluster of VAX minicomputers at the Harbor campus. The major statistical packages, SPSS, SAS, and Minitab; and many other programs are available on the VAX system. UMass Boston also has five DOS/Windows microcomputer laboratories for student use; each lab has between 20 and 30 PCs connected to a common file server with popular word processing, statistical, data base management, and/or spreadsheet software. Other labs contain Macintosh microcomputers. Four microcomputers are available in the Sociology Department for graduate student use.

These computational resources are complemented by extensive social science data archives, and ongoing social science research projects. Through the Social and Demographic Research Institute at UMass Amherst, students have access to data obtained from Gallup polls, surveys of prison inmates, observations of plea bargaining, records of Massachusetts court cases, and over 150 other studies of national and local populations. Through the Center for Survey Research at UMass Boston, the program maintains close ties to survey research projects. Ongoing faculty research provides additional opportunities for student thesis projects.

University membership in the Boston Library Consortium permits student and faculty access to periodicals, books, and a variety of technical material not available in the University's Healey Library.

Degree Requirements

Courses

Candidates for the MA degree in applied sociology must earn a minimum of 36 semester credits, at least 30 of which must be in courses offered in the program. To graduate, students must have an overall grade point average of 3.0.

Each student's course work includes the following:

1. Core courses in the areas of complex organizations, research methodology, social policy, applied social theory, and social problems.
2. Courses related to a specialty area such as alcohol/substance abuse, criminology/corrections, medical sociology, dispute resolution, or gerontology.
3. A field work course (ApSoc 698). The required field work/internship component may be waived if the student has had substantial experience in an appropriate field work setting, for example, a social or human service agency.

Thesis or Comprehensive Examination

Each student chooses either to complete a master's thesis or to take a comprehensive examination. Students choosing the thesis option earn nine of their required 36 credits through writing the thesis (ApSoc 699), a project supervised by a thesis committee. The master's thesis, submitted at the conclusion of degree work, must show evidence of analytical thinking, methodological skill, and competence in the substantive area under investigation.

Students are eligible to take the comprehensive examination after completing a minimum of 30 credits. Independent study (ApSoc 696) may be taken in preparation for the examination.

Applied Sociology

Transfer Credits

Not more than six semester credits in graduate courses earned at other colleges or universities, or six semester credits in approved upper-division courses taken at the University of Massachusetts at Boston (but not credited toward an undergraduate degree), may be credited toward the total credits required for the MA in applied sociology. Before enrollment in the program, students should consult with the graduate program director regarding transfer credits or UMass Boston undergraduate credits if these are intended to satisfy degree requirements.

Students may obtain and satisfy degree credits by concentrating in course work in selected other graduate programs. In particular, full-time students in the MA Program in Applied Sociology may pursue a course of study leading to a certificate in gerontology or dispute resolution. Please note: Enrollment in these areas is contingent on approval of the respective program directors in gerontology and dispute resolution.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9 of this publication.

Candidates for admission to the MA program in Applied Sociology must provide evidence of ability to perform successfully at the graduate level. Such evidence includes:

1. A strong undergraduate record in sociology and related subjects, with at least a 3.0 GPA in sociology and related course work. Applicants who do not hold a BA in sociology should have at least 18 semester credits or the equivalent in undergraduate sociology or another behavioral or social science field related to program objectives.
2. Successful completion of one or more undergraduate courses in sociological theory, research methodology, and statistics. Contingent upon other evidence, including a score on the Miller Analogies Test and evidence of completion of equivalent courses, candidates admitted to the program who are deficient in any of these areas may be required to take undergraduate courses in the Department of Sociology to be completed not later than the end of the second semester of residence in the program.
3. A statement not to exceed 1200 words by the applicant on his or her academic and career interests in applied sociology. The statement should indicate the candidate's current specialization interests (See "Additional Instructions for All Applicants" in the Graduate Admissions Application Instructions at the back of this publication).
4. A score on either the Miller Analogies Test (MAT) or the Graduate Record Examination (GRE).
5. Three letter of recommendation from individuals acquainted with the applicant's interests who are qualified to evaluate his or her potential for sustained graduate study in applied sociology. When possible, at least one of the letters should be from a faculty member with whom the applicant is studying or has studied.

Candidates for admission interested in applying for a graduate assistantship should write to the director of the MA Program in Applied Sociology. Awards are made by the graduate program committee to qualified students who will be enrolling in six or more credits each semester. For complete information, see the "Assistantships and Financial Aid" section on page 21 of this publication.

Course Prerequisites

Please consult UMass Boston's undergraduate catalog for complete information about the undergraduate courses listed here as prerequisites for individual graduate-level courses.

Courses

ApSoc 600
Foundations of Applied Sociology
This course is required for all formally accepted first year students. It provides a comprehensive overview of basic program elements toward the end of encouraging the student to develop an integrated plan of study. Major topics include the nature and variety of course work (the core courses, departmental electives, electives in other departments and programs), the internship requirement, the certificate options in gerontology and dispute resolution, the comprehensive examination, forming a thesis committee, and writing a thesis.
Prerequisite: Enrollment in the MA Program in Applied Sociology.
1 1/2 Lect Hrs, 1 credit

ApSoc 601
Complex Organizations
The course acquaints students with studies of complex organizations that throw light on decision-making and conflict in the setting of formal organizations. Students will study how policies emerge and how they are translated into action. They study research illuminating the nature and functions of rules, the initiation and consequences of political processes, the role and problems of "street-level" bureaucrats, and the impact of social, political and economic conditions on organizational behavior. Theories and concepts are applied to human service organizations and their distinctive features are discussed.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 605
Applied Sociological Theory
This course examines the nature and aims of applied sociological theory. Of special interest is the bearing of pure or basic sociological theory on applied research and problem solving, the differences between pure and applied sociological theory, and the relevance of applied theory for basic sociological theory. Other topics include the theoretical implications of moral and ethical concerns and restrictions in applied social research and employment; and the nature of the values and assumptions involved in efforts to devise and implement policy intended to treat social problems.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 620
Social Problem
An analysis of theories to explain the historical development of social problems. Theories include Marxian and non-Marxian analyses, micro- and macro-theoretical approaches such as functionalism, conflict, interactionism and deviance perspectives. Special attention is given to the application of theories for the understanding of such contemporary social problems as unemployment and poverty, problems of urban communities, inter-group conflict/relations, individual deviance and others.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 621
Social Psychiatry
Sociological analysis of psychiatric theories and practices; examination of the effect of social structure on the construction, diagnosis, and treatment of mental disorders.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 622
Comparative Approaches to Deviance and Social Control
This course considers the relation between deviance and societal development, concentrating on the effects of modernization, urbanization, and industrialization on definitions of deviance and on the incidence and control of various kinds of deviant behavior. Methodological problems of cross-cultural comparison are addressed, and comparative material on violent crime, juvenile delinquency, prostitution, alcoholism and other types of deviance is drawn from Western Europe, the Soviet Union, Asia, Africa, the Middle East, and Latin America.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits

Applied Sociology

ApSoc 623
Research Issues in Criminology and Alcohol Studies
An advanced course exploring the linkage between drinking misbehaviors and the criminal justice system. Special attention is given to legislation focusing on alcohol-related offenses, legal and research issues, and on the evaluation of social programs formulated in response to alcohol-crime problems.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 641
Social Policy I
An in-depth examination of major factors shaping social policy, including historical antecedents; public and private sectors; the interaction of social policy, economy and politics; and how issues become defined as social problems.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 642
Social Policy II
A continuation of ApSoc 641 with special emphasis on problems and issues in implementing social policy, its impact on both recipients and non-recipients of services, and principles of social policy analysis and research. Special attention is given to selected problem areas, such as income-maintenance programs, manpower policy, race and ethnic relations, crime and delinquency, and health-care programs.
Prerequisite: ApSoc 641 or permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 650
Methods of Research I
Focuses on methods of collecting information about social beliefs and social process, including the operation of social service and other programs. The course requires students to conduct exercises that will give them first-hand experiences in various approaches to data-collection and management. Emphasis is given to techniques of survey, field, and experimental research. Students are introduced to the use of computers.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 651
Methods of Research II
A continuation of ApSoc 650, focusing on the interpretation, analysis, and presentation of quantitative data. Course exercises use descriptive statistics, cross-tabulation and regression analysis, as well as related inferential statistics, to analyze social data. Procedures for computer based statistical analyses are introduced and used throughout the course. No prior experience with computers or knowledge of statistical formulae are required.
Prerequisite: ApSoc 650 or permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 653
Computer Applications in Social Analysis
An introduction to computer applications in social agencies and in social research. Topics include the fundamentals of computer operations, the techniques involved in computer use, and the consequences of computers for social practice. Specific techniques covered include spreadsheets, database management, communications, word processing, and the construction and use of data files with statistical packages.
Prerequisites: Graduate standing and permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 655
Evaluation Research
An advanced course in the theory and practice of evaluation of public policy and social service programs for social science students and practitioners. Basic knowledge of research methods is assumed, but relevant issues in research design and implementation are reviewed. General overview of evaluation theory and landmark evaluation studies. Analysis of commonly used evaluation models and of practical and political issues involved in design and implementation of evaluations. Design of an evaluation of a social agency program is required.
Prerequisites: Graduate standing and permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 658
The Theory and Practice of Interviewing
Theory and practice of interviewing for research, field work, and social services. Focus includes sociological perspectives on face-to-face interaction, the role of the interviewer in various settings, and basic interviewing skills. Practice interviewing is required.
Prerequisite: Graduate standing or permission of instructor.
3 Credits

ApSoc 680
Current Issues in Medical Sociology
This variable content course focuses on selected topics in the study of health services and their client populations. The format reflects current public and professional concerns and is responsive to the specific interests of class members .
Prerequisite: Graduate standing or permission of instructor.
6 Lect Hrs, 3 Credits

ApSoc 681
Health Care Policy
This course focuses on recent changes in health care policy and in the organization of medicine with special attention to the impact of these changes on the delivery, distribution, and quality of health services. Additional emphasis is given to the history of medicine; the political economy of health care; inequality in utilization of and access to health services; rising costs and cost containment programs; attempts at regulation; and government health programs and private health service organizations.
Prerequisites: Graduate standing and permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 682
Social Psychological Context of Health Care
This course highlights the role of the social sciences in dealing with problems of health care practice, focusing on research contributions to health maintenance, prevention, treatment, and quality of care. Topics include the nature and goals of client-practitioner relationships, health education, behavioral and psychosomatic medicine, and the linkages between social problems and medical problems.
Prerequisite: Graduate standing.
3 Lect Hrs, 3 Credits

ApSoc 683
Socio-Medical Aspects of Aging
This course focuses on several issues: the epidemiology of health problems associated with aging; social support systems for the elderly; stress and health; medical and psychiatric treatment of the aged; comparative analysis of health care settings; characteristics of the dying process; cross-societal comparison of the medical problems and the medical care of the elderly.
Prerequisite: Graduate Standing.
3 Lect Hrs, 3 Credits

Applied Sociology

ApSoc 690
Classic and Contemporary Views of the Nature of Crime
This course examines the social nature of crime. It explores a variety of theoretical perspectives, including anomie/strain theory, social disorganization theory, social control theory, social learning theories, opportunity theory, deterrence theory, and conflict theory. The various theories are examined through an extensive review of recent empirical studies. Special attention is given to methodological problems in specifying theories for empirical study. Discussion topics also include the adaptability of these theories to social policy and their varying political and social acce ptability during particular historical periods.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 691
Contemporary Issues in Responding to Crime
This course focuses on responses to crime. As individual citizens and as a community, we respond to crime in a variety of ways. The issues covered in this course may therefore include anything from informal responses to crime—such as fear of crime, the reporting of crime to the police, and the organizing of neighborhood watch groups and crime stopper programs—to formal responses, which include police decisions to arrest or handle informally, bail decisions, issues of sentencing, the use of imprisonment, community corrections, parole and probation, and the death penalty. The course emphasizes the social nature of responses to crime, and generally focuses on one or a few of these topics each semester
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3 Credits

ApSoc 696
Independent Study
In-depth study of a particular topic according to the student's interests. Independent study projects are expected to make an important contribution to a student's training in applied sociology. All projects are under the supervision of a faculty advisor, who is responsible for guiding and evaluating the student's work. An application and detailed proposal must be submitted to the graduate program director not later than two weeks before the end of the semester previous to that in which ApSoc 696 is to be taken.
Prerequisites: Graduate standing and permission of the graduate committee.
Hrs by arrangement, 3-4 Credits

ApSoc 697
Special Topics in Applied Sociology
An advanced seminar on selected topics in applied sociology. The course content and credit varies according to topic. Details on special topics courses will be announced during the advance registration period.
Prerequisite: Graduate standing or permission of instructor.
3 Lect Hrs, 3-6 Credits

ApSoc 698
Field Work
Intensive field work and/or internship in a public or private research or practice setting jointly supervised by faculty and agency-based staff. Placements made according to student interest and internship availability.
Prerequisite: Graduate standing or permission of instructor.
Hrs by arrangement, 3-6 Credits

ApSoc 699
Thesis Research in Applied Sociology
Supervised thesis research open to students who elect the thesis option. The research is conducted under the supervision of a faculty committee consisting of a primary faculty advisor and two additional faculty members, who are responsible for advising the student in preparing and carrying out the thesis project and for evaluating and judging its acceptability.
Prerequisite: Permission of the graduate program director and committee.
Hrs by arrangement, 9 Credits

Special Education (MEd)

Faculty

Perry Davis, EdD, *Boston College* •Rehabilitation Counseling •Secondary Special Needs Students (Part-time)

Rhonda Goodale, PhD, *Boston College* •Bilingual and Bicultural Special Education •Assessment and Remediation •Program Evaluation (Part-time)

Gerald Kupperschmidt, MA, *Clark University* •Interdisciplinary Approaches to Special Education Service Delivery •Intensive Special Needs (Part-time)

E Glenn Mitchell, PhD, *Boston College* •Program Evaluation and Inclusionary Curriculums •Nondiscriminatory Assessment •Young Children with Special Needs

Doris Norman, EdD, *Boston University* •Assessment and Remediation •Cross-cultural Special Needs Students

Samuel Toto, EdD, *Boston University* •Special Education Administration •Consultation (Part-time)

The Programs

The Graduate Programs in Special Education offer a comprehensive course of studies leading to

1. provisional certification (all levels);
2. standard certification as Teacher of Children with Moderate Special Needs (N-9) (5-12); and/or
3. the MEd in Special Education.

Through courses, field-based experiences, and practica, the programs afford general education teachers, special educators and other specialists in related fields an opportunity to acquire the necessary assessment, instructional, and consultation skills for working effectively with culturally and linguistically diverse children and/or adolescents at risk and with special educational needs, as well as their families. Course work and experiences focus on the design and implementation of and advocacy for inclusionary learning settings for children with and without disabilities. The urban, multicultural school provides the central context within which graduate students are encouraged to reflect actively on their teaching practices and to view themselves as active contributors to the improvement of schools. Faculty members holding part-time status in this program are career professionals—strongly committed to sharing their knowledge and skills with those entering the field.

Qualified students are encouraged to apply for limited tuition-reimbursement and stipends, currently supported by federal grants, in either of two specialized courses of study:

1. a course of study leading to professional certification as an orientation and mobility specialist, and
2. a course of study specializing in transition from school to work.

Contact the program coordinator for further information.

Degree Requirements

Candidates for the MEd in Special Education who are also pursuing Massachusetts teacher certification will be provided with a sequence of course work, field-based experiences, and practica to fulfill eligibility requirements, effective October 1, 1994. Depending on the candidate's background of certificate-related course work, the total credits for the MEd will vary. For MEd candidates who are not pursuing teacher certification, a total of 42 credits is currently required.

Please note: The Special Education Program is in the process of revising existing courses and developing new ones to reflect the revised state standards for teacher certification. As of October 1,1994, certification is a two-tiered process, a provisional certificate being a prerequisite for full certification. All graduate-level course work taken with prior approval of the program coordinator will be applied to a matriculated student's certification-related course of studies as well as to the MEd degree. The program coordinator will advise each matriculated student about the appropriate program of studies leading to certification under the new state regulations.

Admission Requirements

Please see the general statement of admission requirements for all graduate programs on page 9 of this publication.

The MEd Program in Special Education will recommend for admission those applicants who present evidence of their ability to do graduate work with distinction. Such evidence will normally include

1. A distinguished undergraduate transcript with generally at least an average of 3.0; 2.75 for those who wish only certification.
2. A score on either the Miller Analogies Test or the Graduate Record Examination. Please note: this requirement may be waived if the student already has the MEd, EdD, or PhD degree in a related field.
3. Three letters of recommendation submitted by persons who are knowledgeable about teaching special needs students, who have worked closely with the applicant, and who have direct knowledge of the applicant's teaching skills.
4. A writing sample indicating the applicant's ability to write in a clear professional manner. This sample may be an assessment report or term paper.
5. An undergraduate major in the liberal arts or sciences or an interdisciplinary field, which is required for state teacher certification.*
6. A personal interview with a member of the faculty.

*Certification-seeking candidates who do not hold a liberal arts or sciences or interdisciplinary undergraduate major and who seek to apply for Massachusetts teacher certification may be required to take additional course work, based on a transcript review, to satisfy state regulations.

Special Education

Courses

SpEd 602
Language Acquisition and Theories of Reading
The focus on theory in this course is designed to help the pre-service special educator understand the relationship between oral language development and reading. The course looks first at language acquisition in the normally developing child, with particular emphasis on the developmental stages of communicative competence and on other factors, including second-language learning and influences of varying disabilities, which may affect language structure. The course goes on to examine the subsequent role of oral language, as part of both learning to read and reading to learn. A field work component is included.
3 Lect Hrs, 3 Credits
Ms Norman

SpEd 607
Behavioral and Classroom Management
This course identifies major theorists, techniques, and procedures for facilitating constructive behavior in the classroom. Topics include observational recording systems, contingency contracting, and monitoring of behavioral progress. Emphasis is on prosocial skill development and classroom structures conducive to collaborative learning. Field work components are included.
3 Lect Hrs, 3 Credits
Ms Goodale

SpEd 621
Developmental Patterns: Implications for the Special Educator
Participants study physical, cognitive, perceptual, and psychological aspects of the atypical developmental patterns of children and adolescents with varying disabilities. They explore the conceptual frameworks for understanding normalcy which address cultural, racial and ethnic expectations, family, community, and peer group norms, sex role demands, and psychological definitions. The course also examines the implications of federal and state laws, regulations, and policies related to students with disabilities and special educational needs. Emphasis is given to the relative effectiveness of differing remediation and therapeutic approaches for school-aged students with special needs.
3 Lect Hrs, 3 Credits
Ms Goodale, Mr Kupperschmidt

SpEd 624
Screening and Identification of the Special Needs Individual
This course examines informal and formal assessment procedures and tools for nondiscriminatory screening and identification of students with special educational needs. Primary emphasis is given to appropriate administering, scoring, and interpreting norm-referenced and criterion-referenced tests designed to assess student learning styles and academic achievement. Participants administer a test battery to an individual student and learn how to analyze patterns of strengths and weaknesses, synthesize findings into professional reports, and determine appropriate goals, objectives and instructional recommendations.
3 Lect Hrs, 3 Credits
Ms Mitchell, Ms Norman

SpEd 625
Clinical Teaching I: Elementary
This course explores the major causes of difficulties in reading, spelling and perceptual motor functioning (N-9). Topics include the description and evaluation of a variety of effective teaching approaches, methods and materials used in teaching students with diverse special needs in these areas. Attention is given to matching appropriate methods of teaching to the student's learning style; to models of teaching and learning in inclusionary settings; and to the mechanics of writing an effective IEP. The course includes a field work component.
3 Lect Hrs, 3 Credits
Ms Norman

SpEd 626
Clinical Teaching II: Elementary
This course explores the major causes of difficulties in writing, math, and the content areas (N-9). Topics include the description and evaluation of a variety of effective teaching approaches, methods, and materials used in teaching students with diverse special needs in these areas. Attention is also given to career education and social skills training and their infusions within an across-the-curriculum framework. The course includes a field work component.
3 Lect Hrs, 3 Credits
Ms Mitchell

SpEd 627
Clinical Teaching I: Early Childhood
This course examines the theoretical basis for early intervention for young children with special needs (ages 3-7), and the implications of PL 101-476 (IDEA)—formerly PL 94-142, PL 99-457, and Chapter 766. Participants analyze normal developmental stages of young children as well as atypical patterns, in the areas of cognition, perception, and language. Developmentally-appropriate observational, assessment, and instructional techniques and materials are presented in the framework of inclusionary learning environments. The course includes a field work component.
3 Lect Hrs, 3 Credits
Ms Mitchell

SpEd 628
Clinical Teaching II: Early Childhood
Within a context of normal developmental patterns of children's (ages 3-7) psychosocial development and acquisition of pre-readiness skills and motor and self-help skills, this course examines the unique educational needs of young children with varying disabilities. It explores developmentally appropriate observational, assessment, and curriculum methods/materials in the above areas in the framework of inclusionary learning environments. The course includes a field work component.
3 Lect Hrs, 3 Credits
Ms Mitchell

SpEd 629
Consultation and Interpersonal Skills I
Students demonstrate an understanding of the principles involved in consultation and interpersonal skills. Intervention strategies and interviewing techniques will be stressed. Discussions include dynamics of the team process, roadblocks to communication and analysis of a school system, with subsequent in-service recommendations. Students have an opportunity to apply these learned skills while examining theory concurrently.
3 Lect Hrs, 3 Credits
Mr Toto

SpEd 630
Consultation and Interpersonal Skills II
The course focuses on implementing effective strategies in working with parents of exceptional children. Participants become sensitive to the issues of parenting a child with special needs and learn to establish a collaborative relationship with parents that makes the best possible use of available resources.
3 Lect Hrs, 3 Credits
Mr Toto

Special Education

SpEd 631
Clinical Teaching: Secondary
This course focuses on the development of teaching strategies to be used with the secondary learner with special needs in the basic academic skill areas. The mechanics of writing an effective IEP are addressed. In addition, the critical issues of adolescent development are examined with respect to choosing appropriate alternative strategies.
3 Lect Hrs, 3 Credits
Mr Davis

SpEd 632
Alternative Strategies
This course presents an overview of the vocational assessment process and alternative vocational training programs for the secondary special needs learner. A central strand examines transition to work and adult life. A field work component is included.
3 Lect Hrs, 3 Credits
Mr Davis

SpEd 633
Legal and Political Issues in Special Education
The field of special education is governed by laws (Chapter 766, PL 94-142, PL 101-476, and PL 99-457) and is thus subject to the political process. This course addresses the critical legal aspects of special education, with an in-depth review of legislation, regulations, and current practice issues. The major goal of the course is to clarify for special education teachers their obligations under the law, and to develop strategies for implementing the law with full compliance.
Prerequisite: SpEd 621.
3 Lect Hrs, 3 Credits
Mr Davis

SpEd 646
The Gifted and Talented Student
This special topics course provides students with an overview of the gifted and talented student. Topics include definitions of "gifted," identification of the gifted and talented, and methods and programs geared to these students. Special areas to be addressed are the gifted and talented minority student, as well as the gifted and talented underachiever.
Prerequisite: SpEd 621.
3 Lect Hrs, 3 Credits
Ms Goodale

SpEd 653
Assessment Issues in Bilingual/Multicultural Special Education
This course focuses on assessment tools, both formal and informal, which are culturally sensitive and appropriate. Assessment is viewed within a larger context in order to ensure that critical issues are addressed with respect to the over-representation and the inappropriate retention of bilingual/multicultural students in special education settings.
3 Lect Hrs, 3 Credits
Ms Goodale

SpEd 690
Research Seminar in Special Education
This course includes seminar presentations that address current problems and issues in special education. It examines the principles and methodologies of conducting various types of educational research, including quantitative and qualitative research methods. Students design and implement an original research project.
3 Lect Hrs, 3 Credits
Ms Mitchell

SpEd 696
Independent Study
Faculty-directed comprehensive course of study in a particular area of interest or a fieldwork experience. A detailed proposal of intent must be submitted to the faculty member prior to registration.
Prerequisite: Permission of program director.
Hrs by arrangement, 3-6 Credits

SpEd 697
Special Topics in Special Education
An advanced course involving intensive study of selected topics in special needs education. Course content will vary according to the topic and will be announced prior to registration.
2 1/2-5 Lect Hrs, 3-6 Credits

SpEd 698a
Moderate Practicum
A supervised practicum and seminar for trainees working with school-aged children identified as having mild to moderate special needs (N-9) (5-12) who are receiving chapter 766 services. Preregistration is required one semester prior to enrollment.
6 Credits
Ms Mitchell, Ms Norman

SpEd 699
Computers in Special Education
This course focuses on curriculum applications of computer technology that can improve learning opportunities for students with special needs and enhance their problem-solving capabilities, organizational skills, and social competence. Primary emphasis is on evaluating software, on developing learning modules that can effectively incorporate computer-assisted instruction (CAI) into participants' classrooms, and on field-based application of selected software. Attention is also given to adaptive computing technologies that help students compensate for visual, auditory, and motor limitations.
3 Lect Hrs, 3 credits
Ms Mitchell

Women in Politics and Government (Graduate Certificate)

Faculty

Randy P Albelda (Economics Department), PhD, *University of Massachusetts Amherst* •Women's Economic Status •Research Methods

Ann Froines (Women's Studies Program), MA, *University of London* •Women's History

Elizabeth A Sherman (Women in Politics and Government Program), PhD, *Boston College* •Political Science •Social Economy and Social Justice

Judith Smith (American Studies Program), PhD, *Brown University* •Social History

Mary H Stevenson (Economics Department), PhD, *University of Michigan* •Labor Economics •Urban Economics •Economics of Gender

Ann Withorn (College of Public and Community Service), PhD, *Brandeis University* •Social Welfare

The Program

The Program for Women in Politics and Government is offered through the American Studies Program in affiliation with the John W McCormack Institute for Public Affairs. Its aim is to help educate and train women of the Commonwealth for greater political participation, service, and leadership.

The program's academic focus is on the careful study of governmental structures and political processes. Course work includes analyses of the various effects public policies have had on women, as well as the impact women have had on policy formation and implementation. Additional course work addresses research methods and public policy analysis. Descriptions of the program's courses can be found below: they include AmSt 621 through 626.

The two-semester program runs from September through May. In addition to the fall semester course work, students spend 250 hours from November through April as interns, working on a range of policy, legislation, and public service issues. These internships serve to enhance students' professional skills with substantive and challenging practical training, and to give them the experience of working in politics and government.

Along with their spring course work, students complete a case study project on a public policy controversy. Students meet individually with members of the program faculty in the process of developing their own analysis of the issue.

Requirements

Students complete nine credits in course work, six credits in an internship, and three credits in the final case study project, for a total of 18 credits. A certificate is awarded to each student who completes the program.

Admission

Please see the general statement of admission requirements for all graduate programs on page 9 of this publication.

Applicants will be asked to arrange for a personal interview with program faculty.

For more information about the program, please write or call:

Women in Politics and Government Program
Division of Continuing Education
UMass Boston, Harbor Campus
100 Morrissey Blvd
Boston MA 02125
617 287-6785

Courses

AmSt 621
Contemporary American Public Policy Issues
Fall seminar in Program for Women in Politics and Government. This course provides an overview of the policy-making process and electoral politics; then examines several central public policy issues of contemporary concern, including homelessness and poverty, health, and environmental issues. Readings from the disciplines of sociology and political science analyze how public policy is shaped both by internal processes of government, and by interest group dynamics.
Prerequisite: Admission to the Program for Women in Politics and Government, or permission of instructor.
3 Lect Hrs, 3 Credits
Ms Sherman and Staff

AmSt 622
Fall Internship in Program for Women in Politics and Government
In close consultation with the instructor, students develop and begin to work at an internship placement in a city, state, or federal government agency, or in a lobbying or research organization whose work is directly related to public policy and government. Interns spend 16-20 hours per week in the placement, keeping a record of work activities and skills development, and meet regularly with the instructor to discuss the progress of their internship placement.
Prerequisite: Admission to the Program for Women in Politics and Government.
3 Lect Hrs, 3 Credits
Ms Sherman and Staff

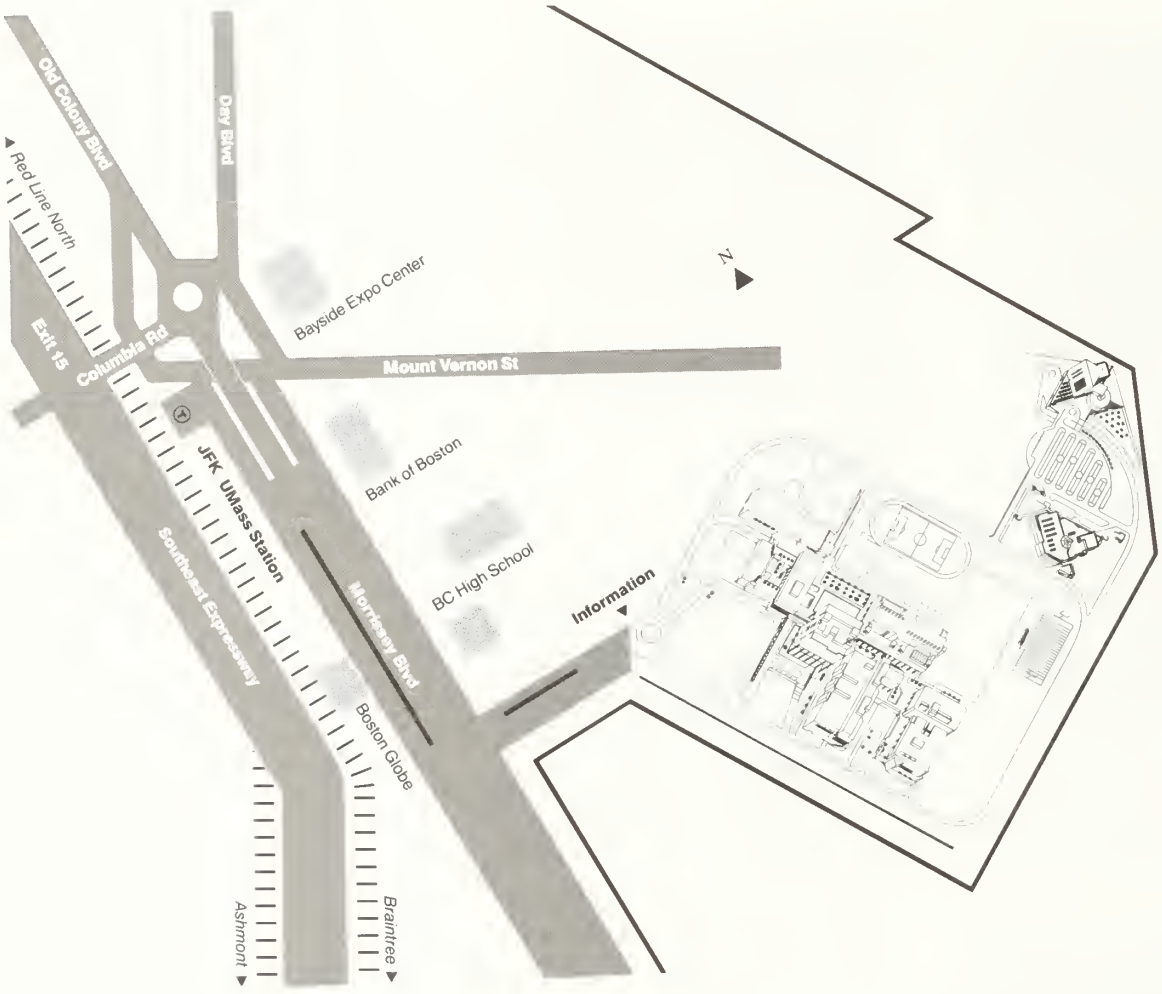
AmSt 623
Women in American Politics and Policy Making
Spring seminar in Program for Women in Politics and Government. This course explores how politics and government affect American women's lives today, and examines the ways that women participate in the political process in order to influence the course of public policy. Readings bridge the disciplinary perspectives of sociology and political science; newer feminist theoretical perspectives on public policy issues are included.
Prerequisites: Admission to the Program for Women in Politics and Government, or permission of instructor; AmSt 621.
3 Lect Hrs, 3 Credits
Ms Sherman and Staff

AmSt 624
Spring Internship in the Program for Women in Politics and Government
The internship placement begun in the fall is completed, and evaluated. Students prepare an internship assessment paper and an oral report on the internship experience for presentation in AmSt 623.
Prerequisites: Admission to the Program for Women in Politics and Government and AmSt 622.
3 Lect Hrs, 3 Credits

AmSt 625
Case Study for Program for Women in Politics and Government
The case study provides an opportunity for students to design and complete a substantial research paper, analyzing in detail one example of public sector decision-making, and integrating theoretical perspectives from the seminars. In close consultation with the instructor, student teams choose a controversial policy decision/area in which they wish to develop expertise—often these topics are related to the student's internship placement. Oral presentations from the case studies are presented in the spring seminar, AmSt 623.
Prerequisites: Admission to the Program for Women in Politics and Government; AmSt 622, 626.
3 Lect Hrs, 3 Credits

AmSt 626
Case Study Methodology for Policy Analysis
This course is required preparation for AmSt 625. The first part of the course focuses on the political and economic context in which policy disputes are raised and resolved through various political processes. Subsequent course work examines policy conflicts with emphasis on relative strengths and weaknesses of contending political forces. Students complete a case study exercise based on readings, library research, and interviews that concentrate on a contemporary public policy controversy. (Course offered in the fall only.)
Prerequisite: Admission to the Program for Women in Politics and Government.
3 Lect Hrs, 3 Credits

UMass Boston
Road Map and Directions to Campus



UMass Boston is only three miles from downtown Boston and is easily accessible by public or private transportation.

By car from the north or west: Take the Southeast Expressway to exit 15 (JFK Library/South Boston/Dorchester) and follow the University of Massachusetts signs along Columbia Road and Morrissey Boulevard to the campus. By car from the south: Take the Southeast Expressway to exit 14 (JFK Library/ Morrissey Boulevard) and follow Morrissey Boulevard northward to the campus.

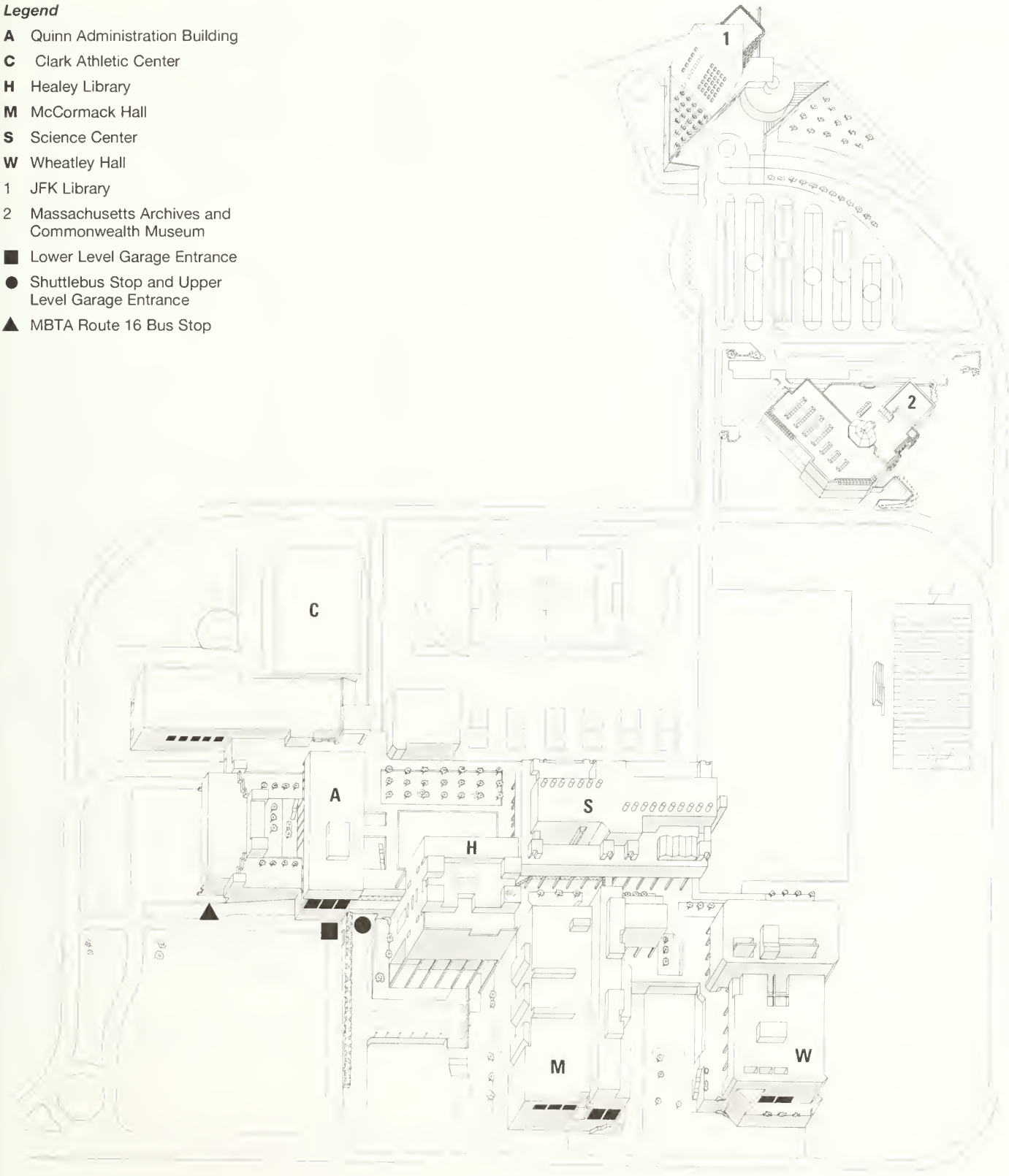
On the MBTA: Take Red Line to JFK/UMass Station. A free shuttlebus will carry you from the "T" parking lot to the campus. MBTA buses following Route 16 (rush hour only) and Route 8 also stop at the campus.

Campus parking facilities: Indoor and outdoor space is available.

UMass Boston Campus Map

Legend

- **A** Quinn Administration Building
- **C** Clark Athletic Center
- **H** Healey Library
- **M** McCormack Hall
- **S** Science Center
- **W** Wheatley Hall
- 1 JFK Library
- 2 Massachusetts Archives and Commonwealth Museum
- ■ Lower Level Garage Entrance
- ● Shuttlebus Stop and Upper Level Garage Entrance
- ▲ MBTA Route 16 Bus Stop



Telephone Directory

Please note: This directory is for the use of graduate students and prospective students, and therefore includes only a partial listing of University departments and offices. The complete University directory of departments, offices, faculty, and staff is issued by the University's Telecommunications Office.

Information, Services, and Administrative Offices

Adaptive Computer Lab	617 287-5227
Admissions and Records, Graduate	617 287-6400
Admissions Information Service	617 287-6000
Admissions, Undergraduate	617 287-6100
Affirmative Action	617 287-5180
Alumni Affairs	617 287-5330
Art Gallery	617 287-7988
Athletics	617 287-7800
Bookstore	617 287-5090
Bursar	617 287-5350
Cafeterias	
McCormack	617 287-5034
Quinn Administration	617 287-5038
Wheatley	617 287-5036
Campus Ministry (Student Affairs)	617 287-5800
Campus Police (Public Safety Office)	617 287-7799
Career Resource Library	617 287-5519
Career Services (University Advising Center)	617 287-5500
Center for International Programs	617 287-7941
Chancellor's Office	617 287-6800
Child Care Center	617 287-6195
College of Arts and Sciences	617 287-6500
College of Management	617 287-7700
College of Nursing	617 287-7500
College of Public and Community Service	617 287-7100
Computer Store	617 287-5270
Computing Services	617 287-5200
Continuing Education	617 287-7900
Copy Centers	
McCormack	617 287-5057
Quinn Administration	617 287-5055
Wheatley	617 287-5056
Copy Store	617 287-5075
Disability Services: Ross Center	617 287-7430
Financial Aid	617 287-7300
Graduate Admissions and Records Office	617 287-6400
Graduate College of Education	617 287-7606
Graduate Student Assembly	617 287-7975
Graduate Study: Office of the Dean	617 287-5700
Harbor Gallery	617 287-7988
Health Promotion Program	617 287-5685
Health Service	617 287-5660
Help, Emergency	911
Human Resources	617 287-5150
ID Office	617 287-7957
International Exchange (Center for International Programs)	617 287-7941
Joiner Center	617 287-5850
Language Lab	617 287-5970
Library Information	617 287-5902
Mass Media	617 287-7990
Mental Health Counseling	617 287-5690
Merit-Based Scholarship Office	617 287-6025
Parking and Transportation	617 287-5040
Personnel (Human Resources)	617 287-5150
Police, Emergency	911
Provost's Office	617 287-5600
Public Safety Office (Campus Police)	617 287-7799
Registrar, Graduate	617 287-6400
Registrar, Undergraduate	617 287-6200
Student Affairs	617 287-5800
Student Life Office	617 287-7950
Student Senate	617 287-7970
Study Abroad Program (Center for International Programs)	617 287-7941
Teacher Preparation Program	617 287-7610
Veterans Affairs	617 287-5875
Watermark	617 287-7960
Wits' End Cafe	617 287-7987
WUMB Radio	617 287-6900

Graduate Programs and Program Directors

American Studies Judith Smith	617 287-6770
Bilingual Education Donaldo Macedo	617 287-5760
Biology Richard Kesseli	617 287-6641
Biotechnology and Biomedical Science Richard Kesseli	617 287-6641
Business Administration (MBA) Marnee Ennis	617 287-7720
Chemistry Robert Carter	617 287-6130
Clinical Psychology Castellano Turner	617 287-6340
Computer Science Dan Simovici	617 287-6441
Counselor Training MaryAnna Ham	617 287-7617
Critical and Creative Thinking John Murray	617 287-6520
Dispute Resolution David Matz	617 287-7370
Education (EdD) Bernard Harleston (Higher Education Administration) Joseph Check (Leadership in Urban Schools)	617 287-7601
Education, Early Childhood, Elementary and Secondary (MEd) Denise Patmon	617 287-7625
Educational Administration Lee Teitel	617 287-7611
English Neal Bruss	617 287-6700
English as a Second Language Studies Donaldo Macedo	617 287-5760
Environmental Biology Richard Kesseli	617 287-6641
Environmental Sciences Joseph Cooney	617 287-7440
Gerontology Frank Caro	617 287-7330
History Clive Foss	617 287-6860
History/Archival Methods James O'Toole	617 287-6860
History/Historical Archaeology Stephen Mrozowski	617 287-6860
Human Services Ann Withorn	617 287-7225
Instructional Design Canice McGarry	617 287-5980
Nursing Diane Arathuzik	617 287-7500
Nursing and Management Diane Arathuzik Marnee Ennis	617 287-7500 617 287-7720
Physics, Applied Martin Posner	617 287-6050
Public Affairs Richard Hogarty	617 287-5550
Public Policy Carole Upshur Paul Watanabe	617 287-6938
School Psychology Vincent Cristiani	617 287-7600
Sociology, Applied Calvin Larson	617 287-6250
Special Education Doris Norman	617 287-7620
Women in Politics and Government Elizabeth Sherman	617 287-7936

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Graduate Admissions Application Instructions

Completing and returning the application form

We are pleased that you are interested in pursuing graduate study at the University of Massachusetts Boston. To apply, please use the application form that you will find on two detachable sheets in this section of the *Graduate Bulletin*. Please also use the detachable forms for letters of recommendation that also appear in this section of the *Bulletin*.

Please note that the application form is to be used only by applicants who wish to enter the University as matriculated graduate students. Do not use the form if you wish to enter an undergraduate program, to take courses as a non-degree-seeking student, or to seek readmission to the University; contact the Graduate Admissions and Records Office for information.

Be sure to read all the following instructions with care before you fill out the form, including the *Additional Instructions for All Applicants* and any *Special Instructions* that may apply to you.

Complete the form fully and accurately. If a particular question does not apply to you, put "NA" in the appropriate space. Please type, or print in black ink, and make bold check marks.

As you complete the form: When answering question 1 under *Enrollment Plans*, please refer to the list of graduate programs and tracks you will find on the opposite side of this page. Under *Biographical Information*, when responding to question 1, put your *legal* name in the spaces marked "Last," "First," and "Middle." After "Previous," put any last name you have formerly used (e.g., a maiden or married name). If you are an international student, be sure to use your foreign address when responding to question 10. Please note that question 11 (about ethnic origin) is entirely optional: you are not required to respond. Neither your response nor your failure to respond will be used as a factor in the admission process. The University will use the information obtained through this question only for the compilation of statistics for the U.S. Department of Education and similar agencies or for its own statistical, demographic profile of the student body. The institutional codes needed to answer question 1 under *Academic Background* can be found in the list of codes for undergraduate institutions at the back of this section of the *Bulletin*.

Be sure to complete the Residency Information section of the application. Before you do this, read the *Rules and Regulations Governing the Residency Status of Students for Tuition Purposes*, which you will find on following pages in this section of the *Bulletin*.

Be sure to sign the form on page 3 to certify that all the information you have given is complete and accurate.

Enclose the application fee. When you mail back the form, send with it a check or money order in the amount of $20.00 (for Massachusetts residents) or $35.00 (for all others) made payable to the University of Massachusetts Boston. Please write your social security number on the check or money order. Do not send cash. Please note that this fee cannot be refunded. If you are a non-citizen permanent resident of the United States, you must also enclose a photocopy—*front and back*—of your alien registration card.

Please use the address below for all application forms (be sure to send *both* detachable sheets), and all statements, transcripts, and correspondence regarding admission.

Office of Graduate Admissions and Records
University of Massachusetts Boston
100 Morrissey Blvd
Boston, MA 02125-3393
Phone: 617 287-6400
Fax: 617 287-6236
E-mail: bos.gadm@dpc.umassp.edu

When to Apply

Check your deadline—and apply early. Information about application deadlines appears in the "Admissions" section of this publication. Your completed application form, fee, and all required credentials must reach the University by the deadline established for the program to which you are applying. It is to your advantage to apply as far in advance of the deadline as possible. When the Graduate Admissions and Records Office has received all necessary credentials, your application will be forwarded to the appropriate graduate program committee for review. This committee's recommendation will then be submitted to the dean of Graduate Studies for a final decision. You will be notified of this decision as soon as possible after it is made.

Additional Requirements

Be sure to follow the *Additional Instructions for All Applicants* below and on the opposite side of this page. These instructions deal with admission tests you may be required to take, and statements, transcripts, and letters of recommendation you must provide.

You must read the *Special Instructions* on the following pages, and respond appropriately, if:

- you are an international student;
- you have formerly studied at Boston State College;
- you wish to enter any of the following programs: American Studies, Biology, Biotechnology and Biomedical Science, Business Administration, Clinical Psychology, Dispute Resolution (MA or Graduate Certificate), Education (EdD), Education (MEd, Teacher Certification), Human Services, Public Affairs, Public Policy.

If you have questions about the application process, or about other aspects of graduate study at UMass Boston, write or call the Graduate Admissions and Records Office.

Additional Instructions for all Applicants

Statement of Interests and Intent
Please write a two-part essay and submit it with your application. In part 1 (no more than 300 words), give your reasons for wishing to attend graduate school. In part 2 (at least 1,200 words), indicate your specific interests, and the kind of work you would like to do, in your intended field. Please note: Certain programs have additional or different requirements for this statement (see individual program sections and *Special Instructions*).

Use plain 8 1/2" x 11" paper, and put your name and social security number on each page. Please type if possible. Be sure to enclose your statement with your application form and submit both to the Graduate Admissions and Records Office.

Admission Tests

Some of UMass Boston's graduate programs either require or recommend that applicants submit scores from such tests as the Graduate Record Examination (GRE), the Graduate Management Aptitude Test (GMAT), and the Miller Analogies Test (MAT). Please see the appropriate section of this publication or contact the Graduate Admissions and Records Office for the requirements of the program to which you are applying. It is your responsibility to take the appropriate test and to have the official results sent to the Graduate Admissions and Records Office. You may obtain information about test dates and centers from your college counseling office or from the Educational Testing Service, Princeton, New Jersey 08540. UMass Boston's CEEB number is 3924.

Transcripts

You must arrange to have two official transcripts of your academic work sent to the Graduate Admissions and Records Office by each college or university you have attended as either an undergraduate or a graduate student. Please note: Transcripts issued directly to students are not acceptable.

Letters of Recommendation

Your application must be supported by three letters of recommendation from persons well qualified to judge your preparation for graduate work in the field of your choice. Please choose these persons according to the requirements set forth in the "Admissions" section of this publication. Individual program sections may also list particular requirements for these letters. Three forms for letters of recommendation are to be found on following pages. Each person recommending you should use one of the forms and should mail it directly to the Graduate Admissions and Records Office.

Graduate Programs and Tracks

Please use the following list when answering question 1 in the Enrollment Plans section of the application form.

American Studies (MA)
Bilingual Education (MA)
Biology (MS)
Biotechnology and Biomedical Science (MS)
Business Administration (MBA)
Chemistry (MS)
Clinical Psychology (PhD)
Computer Science (PhD, MS)
Counselor Training (CAGS, MEd)
Critical and Creative Thinking (MA, Graduate Certificate)
Dispute Resolution (MA, Graduate Certificate)
Education/Higher Education Administration (EdD)
Education/Leadership in Urban Schools (EdD)
Education (Early Childhood, Elementary and Secondary) (MEd, Teacher Certification)
Educational Administration (CAGS, MEd)
English (MA)
English as a Second Language Studies (MA)
Environmental Sciences (PhD, MS)
Environmental Sciences/Environmental Biology (PhD)
Gerontology (PhD)
History (MA)
History/Archival Methods (MA)
History/Historical Archaeology (MA)
Human Services (MS)
Instructional Design (MEd)
Instructional Design/Educational Technology (Graduate Certificate)
Nursing (MS)
Nursing (RN to MS) (BS, MS)
Nursing and Management (MS/MBA)
Physics—Applied (MS)
Public Affairs (MS)
Public Policy (PhD)
School Psychology (CAGS, MEd)
Sociology—Applied (MA)
Special Education (MEd)
Women in Politics and Government (Graduate Certificate)

Special Instructions for International Students and Graduates of Boston State College

If you are an international student—that is, neither a citizen nor a permanent resident of the United States—you must meet the regular admission requirements of the University and must also meet the requirements listed below.

a. Your completed application form, your $35 application fee, and all supporting materials must reach the Graduate Admissions Office by May 1 (for fall semester admissions) or October 1 (for spring semester admissions). Please note: *Some programs specify earlier deadlines; see the appropriate program section of this publication.* The application fee must be submitted in U.S. currency.

b. Official transcripts of your academic record must be sent to the Graduate Admissions and Records Office together with English translations validated by an official public translator.

c. You must submit evidence that you have completed a university-level degree program. Acceptable evidence includes official copies of diplomas, certificates, and notifications of final examination results.

d. If your native language is not English, you must take the Test of English as a Foreign Language (TOEFL) and achieve a score of 550 or higher. Note: This requirement may be waived if you have attended an English-speaking college or university for at least two academic years. For information about this test, write to: TOEFL Program, Box 899, Princeton, NJ 08540, USA.

e. You must complete a Declaration and Certification of Finances form. This form will be sent to you as soon as your application is received. Accurate answers to all questions on the form must show that the funds available to you during your full period of study are at least equal to the estimated costs of attending UMass Boston and living in the Boston area during that period. You will be expected to pay the non-resident tuition rate throughout your enrollment at the University.

If you have ever attended Boston State College, which was consolidated into UMass Boston in 1982, please note that you must follow the standard application procedure. The Graduate Admissions and Records Office will obtain copies of your Boston State College transcripts, but you must be sure to indicate clearly and specifically on the application form, in response to questions 1 and 2 under *Academic Background*, the academic program in which you were enrolled, and your dates of attendance.

Special Instructions for Applicants to Individual Programs

If you wish to enter the American Studies Program, you must submit, in addition to your statement of interests and intent, a writing sample, as described in the "American Studies" section of this publication.

If you wish to enter the Biology Program or the Biotechnology and Biomedical Science Program, you must provide, in your statement of interests and intent, the name of the faculty member you wish to have as your thesis director.

If you wish to enter the Business Administration (MBA) Program, you must provide, in your statement of interests and intent, a description of your preparation for graduate study in business administration. You must also submit a copy of your résumé.

If you wish to enter the Clinical Psychology Program, you must submit additional material, as described below. Please note that the biographical sketch and statement of interests and goals described here are to be submitted in place of the statement of interests and intent referred to in the *Additional Instructions for All Applicants* section above. Please type or word-process all material on plain white 8 1/2" x 11" paper, together with your application form. Be sure that your name and social security number appear on each page you submit.

Supplemental information about your academic record:

1. Please compute a grade point average for the last 60 semester hours (i.e., the last half, or last two full-time equivalent years) of your undergraduate work. Include grades for all courses you took during this period.

2. Please list all the college-level psychology courses you have taken at any time, the institutions at which you took them, and the grades you received. Please also compute a grade point average for these psychology courses (and only these courses).

3. Please list all special honors or awards you have received for academic achievement and explain why they were awarded.

Biographical sketch:

Please provide a biographical sketch of yourself. This statement should be no longer that 1,200 words.

Statement of interests and goals:

Please provide a statement about your interests in clinical psychology. This statement should be at least 1,200 words in length. It must include, in essay form, answers to the following questions.

1. What are your career objectives? How will a PhD in clinical psychology advance those objectives? In what ways does the UMass Boston Clinical Psychology Program address your particular academic, career, and personal goals? What do you foresee as your primary activity five years after receiving your PhD degree?

2. What professional and academic experiences, and what experiences in the rest of your life have especially prepared you for the challenges of graduate school and for a career in clinical psychology?

3. What personal strengths do you bring to your graduate level studies? What personal limitations or hurdles must you address in order to complete graduate school?

4. What research relevant to the Clinical Psychology Program are you interested in pursuing at UMass Boston? What research experiences of yours have prepared you for research work in the Clinical Psychology Program? Please describe a published work (e.g., an empirical study, a theoretical paper, a book) in psychology or a related field that has had a significant impact on your thinking. Explain why you found this work so meaningful.

5. Are there any aspects of your application that you would like to expand on or explain?

A résumé or curriculum vitae.

Important additional information:

About test scores: The Clinical Psychology Program requires applicants to submit scores on the general aptitude (verbal, quantitative, and analytic) and advanced psychology sections of the Graduate Record Examination (GRE). The Miller Analogies Test (MAT) is also strongly recommended.

About deadlines: All applications for admission to the Clinical Psychology Program must be received by January 2nd of the year in which the applicant wishes to enroll. The program admits students only for the fall semester of each year.

If you wish to enter the Graduate Certificate Program in Dispute Resolution, please write essays answering the following two questions, in place of the statement of interests and intent:

1. Have you found yourself in the role of negotiator or mediator in your present or recent employment? (100-200 words.)

2. How will the Dispute Resolution Program fit into and help you with your employment? (250-500 words).

Under *Activities and Work Experience* on the application form, please include your job title, the name of your employer, and a one-sentence description of your duties.

In place of letters of recommendation, please provide the names, working titles, and phone numbers of three people familiar with your recent work who could provide a reference on your behalf.

Please submit a copy of your résumé, if you have one.

If you wish to enter the MA Program in Dispute Resolution, in place of the statement of interests and intent, please write three essays, on separate sheets of paper, addressing the following topics:

1. Outline the development of your interest in dispute resolution, leading to your decision to apply to the program. (500-1000 words.)

2. Describe one or more specific experiences you have had with conflict. What was your role? What were your rewards and frustrations? (500-1000 words.)

3. How will you apply the skills, knowledge, and perspective acquired through the program in your current and/or future employment? (500-1000 words.)

Please submit a copy of your résumé, if you have one.

If you wish to enter the Higher Education Administration Track or the Leadership in Urban Schools Track of the EdD Program in Education, you must submit an admission portfolio consisting of the material described below. Please type or word-process all material on plain white 8 1/2" x 11" paper, together with your application form. Be sure that your name and social security number appear on each page you submit.

A résumé or curriculum vitae indicating, in part, that you have substantial experience in a higher education institution, an elementary or secondary school, or the equivalent.

Transcripts:

Two official transcripts of all previous academic work, graduate and undergraduate, demonstrating particularly that the applicant has earned a master's degree or equivalent from a college or university of recognized standing.

A statement of about 1,500 words describing your background and career aspirations, with an emphasis on the kinds of changes in education you are interested in bringing about. *Your statement should specifically focus either on higher education, if you are applying to the Higher Education Administration track; or on elementary and secondary education, if you are applying to the Leadership in Urban Schools track.* A critical situation in which you were involved, as well as your role in that situation, should be described. This statement is to be submitted in place of the statement of interests and intent referred to in the *Additional Instructions for All Applicants* section above.

Letters of recommendation:

Three letters, including one from an employer and at least one from a colleague, describing and giving evidence of your potential as an initiator and implementer of educational reform.

Employer Agreement Form (for applicants to the Higher Education track only):

A completed Employer Agreement Form, showing year by year how you and your employer will arrange your work life to permit you to meet the program's requirements (including a full weekday on campus each week during the semesters leading up to the qualifying exam).

Please Note:

All applications for admission to the Higher Education Administration Track must be received by March 1 of the year in which the applicant wishes to enroll.

All applications for admission to the Leadership in Urban Schools Track must be received by March 15 of the year in which the applicant wishes to enroll.

If you wish to enter the MEd and Certification Program in Education, you should submit in place of the statement of interests and intent a written statement as described in the "Education" section of this publication.

If you wish to enter the Human Services Program, your statement of interests and intent may be as few as 800 words, but it must include a description of your expectations of the program in terms of increased skills and career advancement. Your statement must also include a realistic assessment of your plans for combining intensive graduate study with job and family responsibilities, as well as a description of any support you may receive from your employer while pursuing graduate study. You must also submit a copy of your résumé.

If you wish to enter the Public Affairs Program, you must submit a copy of your résumé along with your statement of interests and intent.

If you wish to enter the Public Policy Program, you should submit the essays described below, as well as a completed application form and the credentials and letters of recommendation described in the general application instructions. Please note: These essays are to be submitted in place of the statement of interests and intent referred to in the *Additional Instructions for All Applicants* section above.

Please type or word-process all responses to the requests below and submit them on plain white 8 1/2" x 11" paper, together with your application form. Be sure your name and social security number appear on each page you submit.

Biographical Sketch:

Please provide a biographical sketch of yourself. This statement should be no longer than 1,200 words.

Statement of Interests and Goals:

Please provide a statement about your interests in public policy. This statement should be no longer than 1,200 words. It must include, in essay form, responses to the following questions.

1. What are your career objectives? How will a PhD in public policy advance those objectives? In what ways does the UMass Boston Public Policy Program address your particular academic, career, and personal goals? What do you see as your primary activity five years after receiving your PhD degree?

2. What professional, personal, and academic experiences have especially equipped you for the challenges of graduate school? What personal strengths will you bring to your graduate-level studies? What personal limitations or hurdles do you anticipate you must address in order to complete graduate school?

3. What research and public policy issues are you interested in pursuing at UMass Boston? What research and public policy experiences of yours have prepared you for research in the Public Policy Program and a career in public policy?

Please feel free to include any other information about yourself that might be helpful to the admissions committee.

Rules and Regulations Governing the Residency Status of Students for Tuition Purposes

I. Definitions

1. Academic Period—a term or semester in an academic year or a summer session, as prescribed by the Board of Trustees or under their authority.

2. Continuous Attendance—enrollment at the University for the normal academic year in each calendar year, or the appropriate portion or portions of such academic year as prescribed by the Board of Trustees or under their authority.

3. Emancipated Person—a person who has attained the age of 18 years and is financially independent of his or her parents, or if under 18 years of age, (a) whose parents have entirely surrendered the right to the care, custody and earnings of such person and who no longer are under any legal obligation to support or maintain such person; or (b) a person who is legally married; or (c) a person who has no parent. If none of the aforesaid definitions applies, said person shall be deemed an "unemancipated person".

4. Parent

a. the person's father and mother, jointly;

b. if the person's father is deceased, the person's mother; if the person's mother is deceased, the person's father;

c. if a legal guardian has been appointed by a court having jurisdiction, the legal guardian;

d. if either the father or mother is living and no legal guardian has been appointed, the person who then stands in *loco parentis* to the person;

e. if the father and mother are divorced, separated or unmarried, the parent who has been awarded legal custody of the person; or, if legal custody has not been awarded, the parent with whom the person lives. With respect to any adopted student, the word "adoptive" should be inserted before the words "father" and "mother" wherever used.

5. Reside, residency or resident— shall refer to domicile, i.e., a person's true, fixed, and permanent home or place of habitation, where he or she intends to remain

II. Classification

1. For the purpose of assessing tuition and fees, each student shall be classified as a "Massachusetts resident" or a "Non-Massachusetts resident. "A person shall be classified as a Massachusetts resident if he or she (or the parent of an unemancipated student) shall have resided in the Commonwealth of Massachusetts for purposes other than attending an educational institution for twelve months immediately preceding the student's entry or re-entry as a student. Physical presence for this entire twelve-month period need not be required as long as the conduct of the individual, taken in total, manifests an intention to make Massachusetts his or her permanent dwelling place.

III. Determination of Residency

1. Proof of Residency

a. Each case will be decided on the basis of all facts submitted with qualitative rather than quantitative emphasis. A number of factors are required to determine the intention of the person to maintain permanent residency in Massachusetts. No single index is decisive. The burden of proof rests on the student seeking classification as a Massachusetts resident.

b. The following shall be primary indicia of residency:
1. For unemancipated persons, the residency of parents, having custody, within Massachusetts;
2. Certified copies of federal and state income tax returns;
3. Permanent employment in a position not normally filled by a student;
4. Reliance on Massachusetts sources for financial support;
5. Former residency in Massachusetts and maintenance of significant connections there while absent.

c. The following shall be secondary indicia of residency, to be considered of less weight than the indicia listed above in subsection b:
1. Continuous physical presence in Massachusetts during periods when not an enrolled student;
2. Military home of record;
3. All other material of whatever kind or source which may have a bearing on determining residency.

2. Proof of Emancipation

A student asserting that he or she is an emancipated person shall furnish evidence to support such assertion. Such evidence may include:

a. Birth certificate or any other legal document that shows place and date of birth;

b. Legal guardianship papers—court appointment and termination must be submitted;

c. Statement of the person, his or her parent(s), guardian(s), or others certifying no financial support;

d. Certified copies of federal and state income tax returns filed by the person and his or her parent(s);

e. Where none of the foregoing can be provided, an affidavit of the emancipated person in explanation thereof and stating fully the grounds supporting the claim of emancipation.

▶

3. Presumptions, etc.

a. Residency is not acquired by mere physical presence in Massachusetts while the person is enrolled in an institution of higher education (see section II.1).

b. A person having his or her residency elsewhere than in Massachusetts shall not be eligible for classification as a Massachusetts resident for tuition purposes, except as herein provided.

1. Any person who is registered at the University as a Massachusetts resident shall be eligible for continued classification as a Massachusetts resident for tuition purposes (until attainment of the degree for which he or she is enrolled) during continuous attendance at the institution.
2. The spouse of any person who is classified or is eligible for classification as a "Massachusetts resident" is likewise eligible for classification as a "Massachusetts resident." This provision will not apply in the case of a spouse in the United States on a non-immigration visa.
3. A person who is an immigrant/permanent resident of the United States (or has applied for such status) is eligible to be considered for Massachusetts residency for tuition purposes provided that he or she meets the same requirements for establishing residency in Massachusetts as are required of a United States citizen. Non-citizens who are in (or who have applied for) refugee/asylum status are likewise eligible to be considered for Massachusetts residency for tuition purposes provided that he or she meets the same requirements for establishing residency in Massachusetts as are required of a United States citizen. All non-citizens must provide appropriate documentation to verify their status with the United States Immigration and Naturalization Service.
4. Those students whose higher educational pursuits are funded by the Department of Welfare, the Massachusetts Rehabilitation Department, or any of the other Commonwealth of Massachusetts public assistance programs.

c. A person does not gain or lose in-state status solely by reason of his or her presence in any state or country while a member of the Armed Forces of the United States.

d. For the purposes of this policy the following persons shall be presumed to be Massachusetts residents:

1. A member of the Armed Forces of the United States who is stationed in Massachusetts on active duty pursuant to military orders, his or her spouse and dependent students.
2. Full time faculty, professional staff, and classified staff employees of the University of Massachusetts system and their spouses and dependent students.

IV. Appeals

Any student or applicant who is unwilling to accept the initial ruling relative to his or her residency classification may file a "Residency Reclassification Form."

Any student or applicant who is unwilling to accept the ruling relative to his or her residency reclassification may submit an appeal to the University's Residency Appeal Committee. The decision by this committee is final and may not be appealed further.

In any case where the Admissions Office is unable to make an initial determination based on the evidence submitted, the applicant may be required to submit a "Residency Reclassification Form" to the Admission Office for its review before being finally classified as a resident or a non-resident.

V. Penalties

Misrepresentation in or omission from any evidence submitted with respect to any fact, which if correctly or completely stated would be grounds to deny classification as a Massachusetts resident, shall be cause for exclusion or expulsion from or other disciplinary action by the University.

University of Massachusetts Boston

Graduate Admissions Application Form

Enrollment Plans

1. Please indicate the program (and track, if applicable) in which you are interested. _____

2. Please indicate the degree and/or certificate you plan to seek.

☐ Grad Cert ☐ MA ☐ MBA ☐ MS ☐ MS/MBA ☐ MEd

☐ CAGS ☐ EdD ☐ PhD ☐ Other (specify) _____

3. You plan to enroll in ☐ Fall, 19 ____ ☐ Spring, 19 ____ ☐ Summer, 19 ____

4. You expect to attend ☐ Full Time ☐ Part Time

5. Will you apply for financial assistance? ☐ Yes ☐ No

Biographical Information

1. Name
   Last (Family) _____
   First (Given) _____
   Middle _____
   Previous _____

2. Sex ☐ Female ☐ Male

3. U.S. Social Security Number ___ - ___ - ____

4. Date of Birth (Month, Day, Year) _____

5. Country of Citizenship _____

6. Present Mailing Address
   _____ (Number / Street)
   _____ (City / State / Zip / Country)

7. Telephone Numbers ( ) _____ (Home) ( ) _____ (Work)

8. Latest Date to Use Address in Item 6 _____

9. Address After Date in Item 8
   _____ (Number / Street)
   _____ (City / State / Zip / Country)

10. Permanent Legal Address
    _____ (Number / Street)
    _____ (City / State / Zip / Country)

11. Ethnic Origin

☐ American Indian or Alaskan Native ☐ Black (Not of Hispanic Origin) ☐ Hispanic

☐ Asian or Pacific Islander ☐ Cape Verdean ☐ White (Not of Hispanic Origin)

12. Please designate a person to be notified in case of emergency.

Name _____ Relationship _____

This person's permanent address
_____ (Number / Street)
_____ (City / State / Zip / Country)

This person's telephone numbers ( ) _____ (Home) ( ) _____ (Work)

Academic Background

1. Please list in chronological order each institution of higher education you have attended, indicating dates of attendance. Indicate any degrees or certificates earned or expected, and give dates earned or expected. Be sure to include any institution you have attended as a non-degree-seeking student. If you have ever attended UMass Boston and/or Boston State College, be sure to indicate this. Use an additional sheet if necessary (print your name and social security number on this sheet).

Institution _____ Institutional Code _____

City, State _____ Attended From (Mo./Yr.) _____ To (Mo./Yr.) _____

Degree or Certificate _____ Earned (Mo./Yr.) _____ Expected (Mo./Yr.) _____

Institution _____ Institutional Code _____

City, State _____ Attended From (Mo./Yr.) _____ To (Mo./Yr.) _____

Degree or Certificate _____ Earned (Mo./Yr.) _____ Expected (Mo./Yr.) _____

Institution _____ Institutional Code _____

City, State _____ Attended From (Mo./Yr.) _____ To (Mo./Yr.) _____

Degree or Certificate _____ Earned (Mo./Yr.) _____ Expected (Mo./Yr.) _____

2. If you have ever attended Boston State College, indicate the academic program you pursued. _____

3. If you have previously sought admission to a UMass Boston graduate program, indicate the semester for which you applied (e.g., fall, 1987). _____

4. Please list any undergraduate- and graduate-level courses in which you are now enrolled. If none, so state.

Name of Institution	Course Title	Course Number	Date Course Ends	Credit Value (specify unit)

5. If you have taken or plan to take any of the following tests, indicate the month and year below.

☐ GRE (Aptitude) _____ ☐ GRE (Advanced) _____ ☐ Miller Analogies Test _____

☐ GMAT _____ ☐ TOEFL _____ ☐ Other (specify) _____

6. Please give the names of at least three people whom you have asked to forward letters of recommendation in support of your application.

Activities and Work Experience

1. Please indicate chronologically all activities (other than attending college) that have occupied you within the last five years. Include employment, military service, etc. If you have been a teacher, indicate subjects, grades, years taught. Use an additional sheet if necessary (print your name and social security number on this sheet).

Activity	Location	From (Mo./Yr.)	To (Mo./Yr.)

Residency Information

This section must be completed in all applications. *Before* doing so, please read the statement of rules and regulations governing residency status that accompanies this form.

Part 1 This must be filled out by all applicants.

Are you a citizen of the United States? ☐ Yes ☐ No

Please indicate your place of birth below.

City _____ State (if applicable) _____ Nation _____

Part 2 This must be filled out by applicants who *are residents* of Massachusetts as defined by the rules and regulations governing residency status.

I have read the rules and regulations governing the residency status of students for tuition purposes at the University of Massachusetts, and I here state that, pursuant to these regulations, I qualify as a Massachusetts resident for the following reason (check one and indicate beginning of residence):

☐ I am 18 years of age or more, and a U.S. citizen or permanent alien resident, and I have resided continuously in Massachusetts since (Mo./Yr.) _____

☐ I am married, and my spouse has resided continuously in Massachusetts since (Mo./Yr.) _____

If you are a permanent alien resident, please give your Alien Registration Number _____

Part 3 This must be filled out by applicants who are *not* residents of Massachusetts as defined by the rules and regulations governing residency status.

☐ I do not qualify for classification as a Massachusetts resident as defined in the rules and regulations governing the residency status of students for tuition purposes at the University of Massachusetts.

If you are a permanent alien resident, please give your Alien Registration number _____

If you are an international student and you already hold a visa, please indicate your visa status below.

☐ F1 ☐ F2 ☐ J1 ☐ J2 ☐ Other _____

If you are an international student and you have applied for a visa, indicate the visa status for which you have applied.

☐ F1 ☐ F2 ☐ J1 ☐ J2 ☐ Other _____

If you are an international student currently in the U.S.:

When does your I-94 expire? _____ Which institution issued your last I-20? _____

Please be sure that you have answered all questions in part 1 and that you have indicated your residency status in either part 2 or part 3. If you have claimed Massachusetts residency, be sure that you have indicated in part 2 the month and year when you—or your spouse—began residing in Massachusetts.

Please read and sign

This form must be signed by the applicant.

I certify that the information given in this application is complete and accurate, and that I have not attended any institutions other than those listed. I understand that making false or fraudulent statements within this application could result in denial of admission, disciplinary action, and invalidation of credits or degrees earned. Should there be any change in the substance of the information I have given here, I will immediately notify the Graduate Admissions and Records Office.

Signature of Applicant _____ Date _____

Final Instructions

Please mark the following boxes to indicate that this application form is complete.

☐ I have completed the Residency Information section.

☐ I have signed this form.

☐ I have enclosed a check or money order (with Social Security #) in payment of the application fee ($20.00 for Massachusetts residents or $35.00 for all others).

☐ I have enclosed my statement of interests and intent.

☐ (if applicable) I have enclosed a photocopy of the front and back of my alien registration card.

☐ I have read all instructions regarding admission tests, transcripts, and letters of recommendation, and I understand what credentials I must arrange to have sent to the Graduate Admissions and Records Office.

Send this form and all enclosures to:

Graduate Admissions and Records Office
University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125-3393

Phone: 617 287-6400
Fax: 617 287-6236
E-mail: bos.gadm@dpc.umassp.edu

University of Massachusetts Boston

Letter of Recommendation for Graduate Admission

To the applicant: Please provide the information requested in this section of this form (please type or print), sign the form, and give it to a person well acquainted with your academic abilities who has agreed to recommend you for admission to the graduate program of your choice.

Applicant's name _____

Applicant's Social Security Number _____

Applicant's address _____

Proposed program of study _____

Person providing recommendation _____

☐ I waive the right provided by the Family Educational Rights and Privacy Act of 1974 (Buckley Amendment) to view this letter of recommendation in my file at the University of Massachusetts Boston.

☐ I do **not** wish to waive this right. Rather, I wish to retain the right to view this letter in my file at the University of Massachusetts Boston.

Signature of applicant _____ Date _____

To the recommender: Please comment in detail regarding the applicant's potential for graduate study and your basis for judgment. We are particularly interested in your assessment of this applicant's a) capacity and motivation for carrying on advanced study and research, b) creative talent, c) ability to speak and write English clearly, and d) promise for a successful career. We are also interested in the applicant's potential for work as a teaching or research assistant. Use the opposite side of this page if necessary. Because the University of Massachusetts Boston is in compliance with Section 504 of the Rehabilitation Act of 1973, we ask you to avoid referring directly or indirectly to any disability the applicant may have.

Please mail the completed form to:

Office of Graduate Admission and Records
University of Massachusetts Boston
100 Morrissey Blvd.
Boston, MA 02125-3393

Phone: 617 287-6400
Fax: 617 287-6236
E-mail: bos.gadm@dpc.umassp.edu

Recommender's signature _____ Date _____

Title/Position _____

Institution/Organization and address _____

University of Massachusetts Boston

Letter of Recommendation for Graduate Admission

To the applicant: Please provide the information requested in this section of this form (please type or print), sign the form, and give it to a person well acquainted with your academic abilities who has agreed to recommend you for admission to the graduate program of your choice.

Applicant's name _____

Applicant's Social Security Number _____

Applicant's address _____

Proposed program of study _____

Person providing recommendation _____

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Recommender's signature _____ Date _____

Title/Position _____

Institution/Organization and address _____

University of Massachusetts Boston

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To the applicant: Please provide the information requested in this section of this form (please type or print), sign the form, and give it to a person well acquainted with your academic abilities who has agreed to recommend you for admission to the graduate program of your choice.

Applicant's name _____

Applicant's Social Security Number _____

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100 Morrissey Blvd.
Boston, MA 02125-3393

Phone: 617 287-6400
Fax: 617 287-6236
E-mail: bos.gadm@dpc.umassp.edu

Recommender's signature _____ Date _____

Title/Position _____

Institution/Organization and address _____

University and College Codes

Alabama:
1003 Alabama A&M University
1006 Alabama State University
1024 Athens State College
Auburn University:
1005 Auburn
1036 Montgomery
1064 Birmingham-Southern College
8525 Forest Institute of Professional Psychology
1303 Huntingdon College
1736 Jacksonville State University
1349 Judson College
1737 Livingston University
1468 Miles College
1586 Oakwood College
1302 Samford University
1723 Southeastern Bible College
9776 Southern Christian University
1733 Spring Hill College
1739 Stillman College
1800 Talladega College
Troy State University:
1824 Dothan
5797 Ft. Benning
5791 Hurlburt Field
1798 Montgomery
1915 Phenix City
1738 Troy
1813 Tuskegee University
1885 United States Sports Academy
University of Alabama:
1856 Birmingham
1854 Huntsville
1830 Tuscaloosa
1515 University of Mobile
1004 University of Montevallo
1735 University of North Alabama
1880 University of South Alabama

Alaska
4201 Alaska Pacific University
University of Alaska:
4896 Anchorage
4866 Fairbanks
4897 Juneau

Arizona
4003 American Grad. School of International Management
4007 Arizona State University
4277 DeVry Institute of Technology
4331 Grand Canyon University
4006 Northern Arizona University
4736 Southwestern College
4832 University of Arizona
4911 University of Phoenix

Arkansas
6009 Arkansas College
6011 Arkansas State University
6010 Arkansas Technology University
6267 Harding University
6272 Henderson State University
6273 Hendrix College
6321 John Brown University
6549 Ouachita Baptist University
6578 Philander Smith College
6661 Southern Arkansas University
University of Arkansas:
6866 Fayetteville
6368 Little Rock
6007 Monticello
6004 Pine Bluff
6012 University of Central Arkansas
6111 University of the Ozarks
6658 Williams Baptist College

California
4016 American Baptist Seminary of the West
4153 American Conservatory Theatre
7032 Antioch University
4008 Armstrong University
4009 Art Center College of Design
4596 Azusa Pacific University
4021 Bethany College
4017 Biola University
4094 California Baptist College
4031 California College of Arts & Crafts
4807 California Institute Integral Studies
4049 California Institute of the Arts
4034 California Institute of Tech.
4088 California Lutheran University
4035 California Maritime Academy
4128 California School of Professional Psychology
California State Universities:
4110 Bakersfield
4048 Chico
4098 Dominguez Hills
4312 Fresno
4589 Fullerton
4011 Hayward
4345 Humboldt
4389 Long Beach
4399 Los Angeles
4707 Northridge
4082 Pomona
4671 Sacramento
4099 San Bernardino
4682 San Diego
4684 San Francisco
4687 San Jose
4038 San Luis Obispo
4155 San Marcos
4723 Sonoma
4713 Stanislaus
4047 Chapman University
4150 Christian Heritage College
4050 Church Divinity School of the Pacific
4053 Claremont Graduate School
4054 Claremont Mckenna College
4063 College of Notre Dame
4069 Concordia University
4214 DeVry Institute of Technology
4284 Dominican College of San Rafael
0585 Dominican School of Philosophy and Theology
4616 Fresno Pacific College
4313 Fuller Theological Seminary
4328 Golden Gate Baptist Theological Seminary
4329 Golden Gate University
4336 Graduate Theological Union
4341 Harvey Mudd College
4349 Hebrew Union College
4059 Holy Names College
4367 Jesuit School of Theology
4365 John F. Kennedy University
4380 La Sierra University
4062 Loma Linda University
4403 Loyola Marymount University
4411 Masters College and Seminary
4483 Menlo College
4485 Mills College
4507 Monterey Institute of International Studies
4493 Mount Saint Mary's College
4557 National University
4555 New College of California
4581 Occidental College
4394 Otis College of Art&Design
4614 Pacific Christian College
4638 Pacific Graduate School of Psychology
4612 Pacific Oaks College
4599 Pacific School of Religion
4600 Pacific Union College
4620 Patten College
Pepperdine University:
4326 Culver City
4630 Malibu
4619 Pitzer College
4605 Point Loma Nazarene College
4607 Pomona College
4648 Rand Graduate School For Policy Studies
4652 Rosemead School of Psychology
4661 Saint John's Seminary
4673 Saint John's Seminary College
4675 Saint Mary's College of California
4786 Saint Patrick's Seminary
3358 Samuel Merritt College
4036 San Francisco Art Institute
4744 San Francisco Conservatory of Music
4685 San Francisco Theological Seminary
4851 Santa Clara University
4710 School of Theology at Claremont
4693 Scripps College
4651 Scripps Research Institute
4698 Simpson College
4701 Southern California College
2781 Southern California Institute of Architecture
4704 Stanford University
4828 Thomas Aquinas College
4039 U.S. International University
University of California:
4833 Berkeley
4834 Davis
4859 Irvine
4837 Los Angeles
4839 Riverside
4836 San Diego
4840 San Francisco
4835 Santa Barbara
4860 Santa Cruz
4876 University of Judaism
4381 University of La Verne
4065 University of the Pacific
4848 University of Redlands
4849 University of San Diego
4850 University of San Francisco
4852 University of Southern California
4907 Safety & Systems Management
4966 West Coast University
4969 Western State University College of Law
4980 Westminster Theological Seminary in California
4950 Westmont College
4952 Whittier College
4955 Woodbury University
3057 Wright Institute

Colorado
4001 Adams State College
4022 Beth-El College of Nursing
4659 Colorado Christian University
4072 Colorado College
4073 Colorado School of Mines
4075 Colorado State University
4133 Colorado Technical College
4080 Denver Seminary
4310 Fort Lewis College
4484 Mesa State College
4505 Metropolitan State College of Denver
4549 National Technological University
4656 Regis University
4711 Saint Thomas Seminary

University and College Codes

4830 U.S. Air Force Academy
University of Colorado:
4841 Boulder
4874 Colorado Springs
4875 Denver
4842 University of Denver
4074 University of Northern Colorado
4611 University of Southern Colorado
4946 Western State College of Colorado

Connecticut
3001 Albertus Magnus College
3898 Central Connecticut State University
3292 Charter Oak State College
3284 Connecticut College
3966 Eastern Connecticut State University
3390 Fairfield University
3734 Hartford Graduate Center
3439 Holy Apostles College
3712 Quinnipiac College
3780 Sacred Heart University
3754 Saint Joseph College
3662 Southern Connecticut State University
3899 Trinity College
5807 U.S. Coast Guard Academy
3914 University of Bridgeport
University of Connecticut:
3931 Farmington
3915 Storrs
3436 University of Hartford
3663 University of New Haven
3959 Wesleyan University
3350 Western Connecticut State University
3987 Yale University

Delaware
5153 Delaware State University
5811 University of Delaware
5925 Wilmington College

District of Columbia
5007 American University
5104 Catholic University of America
5179 De Sales School of Theology
5240 Gallaudet University
5246 George Washington University
5244 Georgetown University
5297 Howard University
5422 Mount Vernon College
5524 Oblate College
5622 Southeastern University
5632 Strayer College
5796 Trinity College
5929 University of District of Columbia
5899 Wesley Theological Seminary

Florida
5053 Barry University
5061 Bethune-Cookman College
5142 Clearwater Christian College
5223 Eckerd College
5182 Edward Waters College
5190 Embry-Riddle Aero University
5235 Flagler College
5215 Florida A. & M. University
5229 Florida Atlantic University
5605 Florida Beacon Bible College
5080 Florida Institute of Technology
5206 Florida International University
5217 Florida Memorial College
5218 Florida Southern College
5219 Florida State University
5171 Fort Lauderdale College
5331 Jacksonville University
5437 Lynn University
5071 Miami Institute of Psychology
5479 National-Louis University
5345 Orlando College
5553 Palm Beach Atlantic College
5572 Rollins College
5650 Saint John Vianney College Seminary
5638 Saint Leo College
5076 Saint Thomas University
5630 Stetson University
9907 Tampa College
5463 Trinity College at Miami
5233 University of Central Florida
5812 University of Florida
5815 University of Miami
5490 University of North Florida
5828 University of South Florida
5914 University of Sarasota
5819 University of Tampa
5833 University of West Florida
5883 Warner Southern College

Georgia
5002 Agnes Scott College
5004 Albany State College
5012 Armstrong State College
5029 Atlanta Christian College
5336 Augusta College
5059 Berry College
5066 Brenau University
5110 Clark Atlanta University
5118 Columbia Theological Seminary
5123 Columbus College
6124 Covenant College
5715 DeVry Institute of Technology
5187 Emory University
5220 Fort Valley State College
5252 Georgia College
5248 Georgia Institute of Technology
5274 Georgia School of Professional Psychology
5253 Georgia Southern University
5250 Georgia Southwestern College
5251 Georgia State University
5359 Kennesaw State College
5362 LaGrange College
5358 Life College
5406 Medical College of Georgia
Mercer University:
5025 Atlanta
5409 Macon
5415 Morehouse College
5417 Morris Brown College
5497 North Georgia College
5521 Oglethorpe University
5530 Paine College
5537 Piedmont College
5631 Savannah College of Art and Design
5609 Savannah State College
5616 Shorter College
5626 Southern College Technology
5628 Spelman College
5799 Toccoa Falls College
5813 University of Georgia
5855 Valdosta State University
5895 Wesleyan College
5900 West Georgia College

Hawaii
4106 Brigham Young University
4105 Chaminade University of Honolulu
8525 Forest Institute of Professional Psychology
4352 Hawaii Pacific University
University of Hawaii:
4868 East West Center
4869 Hilo
4867 Honolulu/Manoa
4959 West Oahu

Idaho
4060 Albertson College of Idaho
4018 Boise State University
4355 Idaho State University
3817 Lewis-Clark State College
4544 Northwest Nazarene College
4843 University of Idaho

Illinois
7501 Adler School of Professional Psychology
1014 American Conservatory of Music
1025 Augustana College
1027 Aurora University
1052 Barat College
1061 Bethany Theological Seminary
1065 Blackburn College
1070 Bradley University
1112 Catholic Theological Union
1119 Chicago School of Professional Psychology
1118 Chicago State University
1120 Chicago Theological Seminary
1130 College of Saint Francis
1135 Columbia College
1140 Concordia University
1165 DePaul University
DeVry Institute of Technology:
1186 Addison
1171 Chicago
1199 Eastern Illinois University
1204 Elmhurst College
1206 Eureka College
8525 Forest Institute of Professional Psychology
1245 Garrett-Evangelical Theological Seminary
1263 Governors State University
1256 Greeenville College
1707 Illinois Benedictine College
1315 Illinois College
1317 Illinois College of Optometry
1318 Illinois Institute of Technology
1306 Illinois School of Professional Psychology
1319 Illinois State University
1320 Illinois Wesleyan University
1351 Judson College
1372 Knox College
1392 Lake Forest College
1009 Lake Forest Graduate School of Management
1404 Lewis University
1405 Lincoln Christian College & Seminary
1412 Loyola University of Chicago
1026 Lutheran School of Theological at Chicago
1435 MacMurray College
1455 McCormick Theological Seminary
1456 McKendree College
1457 Meadville/Lombard Theological School
1040 Mennonite College of Nursing
1470 Millikin University
1484 Monmouth College
1567 National College of Chiropractic
1551 National-Louis University
1555 North Central College
1556 North Park College
1090 Northeastern Illinois University
1558 Northern Baptist Theological Seminary
1559 Northern Illinois University
1565 Northwestern University
1596 Olivet Nazarene University
1621 Parks College of Saint Louis University
1630 Principia College
1645 Quincy University
1665 Rockford College

University and College Codes

1666 Roosevelt University
1667 Rosary College
1708 Saint Xavier University
1787 Sangamon State University
1713 School of the Art Institute of Chicago
1714 Seabury-Western Theological Seminary
1716 Sherwood Conservatory of Music
1717 Shimer College
Southern Illinois University:
1726 Carbondale
1759 Edwardsville
1820 Trinity Christian College
1810 Trinity College
1797 Trinity Evangelical Divinity School
1832 University of Chicago
University of Illinois:
1851 Chicago
1836 Urbana
1872 Vandercook College of Music
1900 Western Illinois University
1905 Wheaton College

Indiana

1016 Anderson University
1051 Ball State University
1079 Bethel College
1073 Butler University
1776 Calumet College of Saint Joseph
1141 Concordia Theological Seminary
1166 DePauw University
1195 Earlham College
1228 Franklin College of Indiana
1251 Goshen College
1252 Grace Theological Seminary & College
1290 Hanover College
1304 Huntington College
1323 Indiana Institute of Technology
1322 Indiana State University
Indiana University:
1324 Bloomington
1194 East
1338 Gary
1337 Kokomo
1339 South Bend
Indiana University-Purdue University:
1336 Fort Wayne
1325 Indianapolis
1314 Indiana University Southeast
1446 Indiana Wesleyan University
1440 Manchester College
1442 Marian College
1379 Martin University
1585 Oakland City College
Purdue University:
1638 Hammond
1631 West Lafayette
1640 Westville
1693 Saint Francis College
1697 Saint Joseph's College
1704 Saint Mary-of-the-Woods College
1702 Saint Mary's College
1705 Saint Meinrad College
Taylor University:
1227 Fort Wayne
1802 Upland
1811 Tri-State University
1208 University of Evansville
1321 University of Indianapolis
1841 University of Notre Dame
1841 University of Southern Indiana
1874 Valparaiso University
1895 Wabash College

Iowa

6046 Briar Cliff College
6047 Buena Vista College
6087 Central College
6099 Clarke College
6101 Coe College
6119 Cornell College
6174 Divine Word College
6171 Dordt College
6168 Drake University
6214 Faith Baptist Bible College
6249 Graceland College
6251 Grand View College
6242 Grinnell College
6306 Iowa State University
6308 Iowa Wesleyan College
6370 Loras College
6375 Luther College
4497 Maharishi International University
6415 Morningside College
6417 Mount Mercy College
6490 Northwestern College
6593 Palmer College Chiropractic
6617 Saint Ambrose University
6650 Simpson College
6397 Teikyo Marycrest University
6936 Teikyo Westmar University
6869 University of Dubuque
6681 University of Iowa
6307 University of Northern Iowa
6885 Upper Iowa University
6094 Vennard College
6926 Wartburg College

Kansas

6031 Baker University
6228 Barclay College
6056 Benedictine College
6034 Bethany College
6037 Bethel College
6335 Emporia State University
6218 Fort Hays State University
6224 Friends University
6615 Kansas Newman College
6334 Kansas State University
6337 Kansas Wesleyan University
6392 Manhattan Christian College
6404 McPherson College
6437 Mid-America Nazarene College
6336 Pittsburg State University
6630 Saint Mary College
6815 Tabor College
6871 University of Kansas
6928 Washburn University
6884 Wichita State University

Kentucky

1098 Alaice Lloyd College
1019 Asbury College
1020 Asbury Theological Seminary
1056 Bellarmine College
1060 Berea College
1071 Brescia College
1097 Campbellsville College
1109 Centre College
1145 Cumberland College
1200 Eastern Kentucky University
1249 Georgetown College
1377 Kentucky Christian College
1368 Kentucky State University
1369 Kentucky Wesleyan College
1388 Lexington Theological Seminary
1409 Lindsey Wilson College
1487 Morehead State Uiversity
1494 Murray State University
1574 Northern Kentucky University
1625 Pikeville College
1724 Southern Baptist Theological Seminary
1552 Spalding Uiversity
1876 Thomas More College
1808 Transylvania University
1825 Union College
1837 University of Kentucky
1838 University of Louisville
1901 Western Kentucky University

Louisiana

6082 Centenary College of Louisiana
6164 Dillard University
6250 Grambling State University
6371 Louisiana College
Louisiana State Uiversity:
6373 Baton Rouge
6385 New Orleans Medical Center
6355 Shreveport
6372 Louisiana Technology University
6374 Loyola University
6403 McNeese State University
6472 New Orleans Baptist Theological Seminary
6221 Nicholls State University
6482 Northeast Louisiana University
6492 Northwestern State University
6495 Notre Dame Seminary
6002 Our Lady of Holy Cross College
6689 Saint Joseph Seminary & College
6656 Southeastern Louisiana University
6663 Southern University A&M College
6711 Southern University at New Orleans
6832 Tulane University
6379 University of New Orleans
6672 University of Southwestern Louisiana
6975 Xavier University of Louisiana

Maine

3076 Bates College
3089 Bowdoin College
3280 Colby College
3305 College of the Atlantic
3440 Husson College
3505 Maine Maritime Academy
3755 Saint Joseph's College
3903 Thomas College
3925 Unity College
University of Maine:
3916 Augusta
3506 Farmington
3393 Fort Kent
3956 Machias
3008 Presque Isle
3751 University of New England
3691 University of Southern Maine

Maryland

5085 Baltimore Hebrew Uiversity
5401 Bowie State University
5884 Capital Bible Seminary
5101 Capitol College
5114 College of Notre Dame of Maryland
5890 Columbia Union College
5122 Coppin State College
5402 Frostburg State University
5257 Goucher College
5296 Hood College
5332 Johns Hopkins University
5370 Loyola College
5399 Maryland Institute, College of Art
5416 Morgan State University
5421 Mount Saint Mary's College & Seminary
5598 Saint John's College
5601 Saint Mary's College of Maryland
5602 Saint Mary's Seminary & University
5403 Salisbury State University

University and College Codes

5404 Towson State University
5809 U.S. Naval Academy
5810 University of Baltimore
University of Maryland:
0988 Augsburg
5848 Baltimore City College
5814 College Park
5400 Eastern Shore
0715 European Division
5884 Washington Bible College
5888 Washington College
5931 Washington Theological Union
5898 Western Maryland College

Massachusetts

3002 American International College
3003 Amherst College
3004 Andover Newton Theological School
3005 Anna Maria College
3009 Assumption College
3010 Atlantic Union College
3075 Babson College
3096 Bentley College
3107 Berklee College of Music
3083 Boston College
3084 Boston Conservatory
3087 Boston University
3091 Bradford College
3092 Brandeis University
3517 Bridgewater State College
3279 Clark University
3282 College of the Holy Cross
3285 Curry College
3365 Eastern Nazarene College
3283 Elms College
3367 Emerson College
3368 Emmanuel College
3370 Episcopal Divinity School
3518 Fitchburg State College
3519 Framingham State College
3417 Gordon College
3424 Gordon-Conwell Theological Seminary
3447 Hampshire College
3434 Harvard University
3435 Hebrew College
3449 Hellenic College
3483 Lesley College
3516 Massachusetts College of Art
3514 Massachusetts Institute of Technology
3501 Massachusetts School Professional Psychology
3525 Merrimack College
3529 Mount Holyoke College
3659 New England Conservatory of Music
3666 Nichols College
3521 North Adams State College
3667 Northeastern Univeristy
3689 Pine Manor College
3723 Regis College
3772 Saint Hyacinth College & Seminary
3295 Saint John's Seminary
3522 Salem State College
3761 Simmons College
3795 Simon's Rock College of Bard
3762 Smith College
3763 Springfield College
3770 Stonehill College
3771 Suffolk University
3901 Tufts University
University of Massachusetts:
3917 Amherst
3924 Boston
3786 Dartmouth
3911 Lowell
3936 Worcester
3957 Wellesley College
3962 Western New England College
3523 Westfield State College
3971 Weston School of Theology
3963 Wheaton College
3964 Wheelock College
3965 Williams College
3967 Woods Hole Oceanic Inst.
3969 Worcester Polytechnic Inst.
3524 Worcester State College

Michigan

1001 Adrian College
1007 Albion College
1010 Alma College
1030 Andrews University
1018 Aquinas College
1095 Calvin College
1096 Calvin Theological Seminary
1106 Central Michigan University
1123 Cleary College
1094 Concordia College
1156 Cranbrook Academy of Art
1201 Eastern Michigan University
1222 Ferris State University
1258 Grand Valley State University
1295 Hillsdale College
1301 Hope College
1365 Kalamazoo College
1421 Lake Superior State University
1399 Lawrence Technological University
1437 Madonna University
1452 Marygrove College
1516 Michigan Christian College
1465 Michigan State University
1464 Michigan Technology University
1560 Northern Michigan University
1568 Northwood University
1497 Oakland University
1595 Olivet College
1766 Saginaw Valley State University
1753 Saint Mary's College
1732 Spring Arbor College
1835 University of Detroit
1839 University of Michigan
1898 Wayne State University
1902 Western Michigan University
1167 William Tyndale College

Minnesota

6014 Augsburg College
6676 Bemidji State University
6038 Bethel College
6067 Bethel Theological Seminary
6081 Carleton College
6104 College of Saint Benedict
6105 College of Saint Catherine
6107 College of Saint Scholastica
6113 Concordia College, Moorhead
6114 Concordia College, Saint Paul
6639 Crown College
6435 Dr. Martin Luther College
6253 Gustavus Adolphus College
6265 Hamline University
6377 Luther Northwestern Seminary
6390 Macalester College
6677 Mankato State University
6445 Metropolitan State University
6411 Minneapolis College of Art & Design
6412 Minnesota Bible College
6678 Moorhead State University
6489 Northwestern College
6679 Saint Cloud State University
6624 Saint John's University
6632 Saint Mary's College
6638 Saint Olaf College
6641 Saint Paul Seminary
6703 Southwest State University
University of Minnesota:
6873 Duluth
6444 Mayo Graduate School
6874 Minneapolis/Saint Paul
6890 Morris
6110 University of Saint Thomas
6680 Winona State University

Mississippi

1008 Alcorn State University
1055 Belhaven College
1066 Blue Mountain College
1163 Delta State University
1341 Jackson State University
1471 Millsaps College
1477 Mississippi College
1480 Mississippi State Unversity
1481 Mississippi University For Women
1482 Mississippi Valley State University
1646 Reformed Theological Seminary
1669 Rust College
1807 Tougaloo College
1840 University of Mississippi
1479 University of Southern Mississippi
1907 William Carey College

Missouri

6023 Aquinas Institute of Theology
6109 Avila College
6331 Calvary Bible College
6085 Central Bible College
6089 Central Methodist College
6090 Central Missouri State University
6713 College of the Ozarks
6095 Columbia College
6112 Conception Seminary College
6115 Concordia Seminary
6141 Covenant Theological Seminary
6123 Culver-Stockton College
6092 DeVry Institutes, Kansas City
6169 Drury College
6198 Evangel College
6216 Fontbonne College
8525 Forest Institute of Professional Psychology
6269 Harris-Stowe State College
6330 Kansas City Art Institute
6347 Kenrick-Glennon Seminary
6366 Lincoln University
6367 Lindenwood College
6399 Maryville University of Saint Louis
6441 Midwestern Baptist Theological Seminary
6439 Missouri Baptist College
6322 Missouri Southern State College
6413 Missouri Valley College
6625 Missouri Western State College
6483 Northeast Missouri State University
6488 Northwest Missouri State University
6574 Park College-Parkville
6611 Rockhurst College
6629 Saint Louis University
6725 Saint Paul School of Theology
6655 Southeast Missouri State University
6664 Southwest Baptist University
6665 Southwest Missouri State University
6683 Stephens College
University of Missouri:
6875 Columbia
6872 Kansas City
6876 Rolla
6889 Saint Louis
6929 Washington University

University and College Codes

6933 Webster University
6937 Westminster College
6941 William Jewell College
6944 William Woods University

Montana

4041 Carroll College
4058 College of Great Falls
4298 Eastern Montana College
4487 Montana College of Mineral Science & Technology
4488 Montana State University
4538 Northern Montana College
4660 Rocky Mountain College
4489 University of Montana
4945 Western Montana College

Nebraska

6053 Bellevue College
6466 Chadron State College
6049 Clarkson College
6106 College of Saint Mary
6116 Concordia College
6121 Creighton University
6157 Dana College
6165 Doane College
6248 Grace College of the Bible
6270 Hastings College
6406 Midland Lutheran College
6470 Nebraska Wesleyan University
6468 Peru State College
6865 Union College
University of Nebraska:
6467 Kearney
6877 Lincoln
6420 Omaha
6469 Wayne State College

Nevada

University of Nevada:
4861 Las Vegas
4844 Reno

New Hampshire

3281 Colby-Sawyer College
3351 Dartmouth College
3395 Franklin Pierce College
3472 Keene State College
3657 New England College
3649 New Hampshire College
3670 Notre Dame College
3690 Plymouth State College
3728 Rivier College
3748 Saint Anselm's College
3918 University of New Hampshire

New Jersey

2072 Caldwell College
2090 College of Saint Elizabeth
2203 DeVry Technical Institute
2193 Drew University
Fairleigh Dickinson University:
2262 Madison
2255 Rutherford
2263 Teaneck
2274 Georgian Court College
2322 Immaculate Conception Seminary
2516 Jersey City State College
2517 Kean College of New Jersey
2416 Monmouth College
2520 Montclair State University
2513 New Jersey Institute of Technology
2566 Northeastern Bible College
2671 Princeton Theological Seminary
2672 Princeton University
2884 Ramapo College of New Jersey
2758 Rider University
2515 Rowan College of New Jersey
Rutgers-the State University:
Undergraduate Colleges:
2092 Camden College of Arts and Sciences
2838 College of Engineering
2170 Cook College
2192 Douglass College
2384 Livingston College
2512 Newark College of Arts and Sciences
2789 Nursing
2839 Pharmacy
2765 Rutgers College
University Colleges:
2742 Camden
2777 New Brunswick
2753 Newark
2806 Saint Peter's College
2811 Seton Hall University
2819 Stevens Institute of Technology
2889 Stockton State College
2519 Trenton State College
0598 University of Medicine and Dentistry of New Jersey
2930 Upsala College
2518 William Paterson College of New Jersey

New Mexico

4676 College of Santa Fe
4116 College of the Southwest
4299 Eastern New Mexico University
4532 New Mexico Highlands University
4533 New Mexico Inst. of Mining & Tech.
4531 New Mexico State University
4737 Saint John's College
4845 University of New mexico
4535 Western New Mexico University

New York

2003 Adelphi University
2947 Albany Medical College
2005 Alfred University
2014 American Friends of Hebrew University
2035 Bank Street College of Education
2037 Bard College
2038 Barnard College
2073 Canisius College
2612 Christ the King Seminary
City University of New York:
2479 Baccalaureate Program
2034 Baruch College
2046 Brooklyn College
2083 City College
2778 College of Staten Island
2113 Graduate Center
2312 Herbert H. Lehman College
2301 Hunter College
2115 John Jay College of Criminal Justice
2460 Medgar Evers College
2750 Queens College
2992 York College
2084 Clarkson University
2086 Colgate University
2088 College of New Rochelle
2091 College of Saint Rose
2116 Columbia University
2096 Concordia College
2097 Cooper Union
2098 Cornell University
2762 Daemen College
2011 Dowling College
2197 D'Youville College
2224 Eastman School of Music
2226 Elmira College
2257 Fashion Institute of Technology
2259 Fordham University
2271 General Theological Seminary
2286 Hamilton College
2288 Hartwick College
2290 Hebrew Union College
2294 Hobart College
2295 Hofstra University
2298 Holy Trinity Orthodox Seminary
2299 Houghton College
Iona College:
2324 New Rochelle
2327 Orangeburg
2325 Ithaca College
2339 Jewish Theological Seminary of America
2340 Juilliard School
2350 Keuka College
2352 King's College
2366 Le Moyne College
Long Island University:
2369 Brooklyn
2070 C.W. Post Center
2853 Southampton
2378 Westchester
2395 Manhattan College
2396 Manhattan School of Music
2397 Manhattanville College
2398 Mannes College of Music
2400 Marist College
2406 Marymount College
2405 Marymount Manhattan College
2422 Medaille College
2409 Mercy College
2415 Molloy College
2423 Mount Saint Mary College
2511 Nazareth College of Rochester
2521 New School for Social Research
2561 New York Institute of Technology
2553 New York Medical College
2043 New York Theological Seminary
2562 New York University
2558 Niagara University
2560 Nyack College
Pace University:
2635 New York City
2644 White Plains
2638 Parsons School of Design
Polytechnic University:
2668 Brooklyn
2695 Farmingdale
2669 Pratt Institute
2757 Rensselaer Polytechnic Institute
2759 Roberts Wesleyan College
2760 Rochester Institute of Technology
2761 Rockefeller University
2764 Russell Sage College
2793 Saint Bonaventure University
2796 Saint Francis College
2798 Saint John Fisher College
Saint John's University:
2799 Jamaica
2845 Staten Island
2802 Saint Joseph's College
2803 Saint Joseph's Seminary
2805 Saint Lawrence University
2807 Saint Thomas Aquinas College
2810 Sarah Lawrence College
2835 School of Visual Arts
2824 Seminary of the Immaculate Conception
2814 Siena Colleg
2815 Skidmore College
State University of New York:

University and College Codes

2532 Center at Albany
2535 Center at Binghamton
2925 Center at Buffalo
2548 Center at Stony Brook
2537 College at Brockport
2533 College at Buffalo
2538 College at Cortland
2530 College of Environmental Science & Forestry
2539 College at Fredonia
2540 College at Geneseo
2541 College at New Paltz
2866 College at Old Westbury
2542 College at Oneonta
2897 College of Optometry
2543 College at Oswego
2544 College at Plattsburgh
2545 College at Potsdam
2878 College at Purchase
2214 Empire State College
2896 Institute of Technology
2536 Maritime College
2823 Syracuse University
2902 Touro College
2920 Union College & University
2923 U.S. Merchant Marine Academy
2924 U.S. Military Academy
2928 University of Rochester
2932 Utica College of Syracuse University
2956 Vassar College
2966 Wagner College
2971 Wells College
2978 William Smith College
2990 Yeshiva University

North Carolina

5010 Appalachian State University
5052 Barber-Scotia College
5016 Barton College
5055 Belmont Abbey College
5100 Campbell University
5103 Catawba College
5150 Davidson College
5156 Duke University
5180 East Carolina University
5629 Elizabeth City State University
5183 Elon College
5212 Fayetteville State University
5242 Gardner-Webb University
5260 Greensboro College
5261 Guilford College
5293 High Point University
5333 Johnson C. Smith University
5364 Lees-McRae College
5365 Lenoir-Rhyne College
5367 Livingstone College
5395 Mars Hill College
5410 Meredith College
5426 Methodist College
5435 Mount Olive College
5003 North Carolina A. & T. State University
5495 North Carolina Central University
5512 North Carolina School of the Arts
5496 North Carolina State University
5501 North Carolina Wesleyan College
5534 Pembroke State University
5536 Pfeiffer College
5555 Piedmont Bible College
5560 Queens College
5214 Saint Andrews Presbyterian College
5596 Saint Augustine's College
5607 Salem College
5612 Shaw University
5620 Southeastern Baptist Theological Seminary
University of North Carolina:
5013 Asheville
5816 Chapel Hill
5105 Charlotte
5913 Greensboro
5907 Wilmington
5885 Wake Forest University
5886 Warren Wilson College
5897 Western Carolina University
5908 Wingate College
5909 Winston-Salem State University

North Dakota

6477 Dickinson State University
6318 Jamestown College
6478 Mayville State University
6479 Minot State University
6474 North Dakota State University
6428 University of Mary
6878 University of North Dakota
6480 Valley City State University

Ohio

1827 Air Force Institute of Technology
1017 Antioch University
1021 Ashland University
1050 Baldwin-Wallace College
1067 Bluffton College
1069 Bowling Green State University
1099 Capital University
1105 Case Western Reserve University
1151 Cedarville College
1107 Central State University
1091 Cincinnati Bible College & Seminary
1088 Circleville Bible College
1124 Cleveland Institute of Music
1221 Cleveland State University
1129 College of Mount Saint Joseph
1134 College of Wooster
1085 Columbus College of Art & Design
1162 Defiance College
1164 Denison University
1605 DeVry Institute of Technology
1178 Dyke College
1133 Franciscan University of Steubenville
1229 Franklin University
1291 Hebrew Union College
1292 Heidelberg College
1297 Hiram College
1342 John Carroll University
1367 Kent State University
1370 Kenyon College
1391 Lake Erie College
1439 Malone College
1444 Marietta College
1542 Medical College of Ohio
1463 Miami University
1492 Mount Union College
1531 Mount Vernon Nazarene College
1496 Muskingum College
1566 Notre Dame College
1587 Oberlin College
1131 Ohio Dominican College
1591 Ohio Northern University
1592 Ohio State University
1593 Ohio University
1594 Ohio Wesleyan University
1597 Otterbein College
1691 Saint Mary Seminary
1790 Shawnee State University
1817 Tiffin University
1214 Trinity Lutheran Seminary
1828 United Theological Seminary
1829 University of Akron
1833 University of Cincinnati
1834 University of Dayton
1223 University of Findlay
1663 University of Rio Grande
1845 University of Toledo
1848 Ursuline College
1926 Walsh University
1906 Wilberforce University
1909 Wilmington College
1922 Wittenberg University
1179 Wright State University
1965 Xavier University
1975 Youngstown State University

Oklahoma

6080 Cameron University
6186 East Central University
6361 Langston University
6485 Northeastern State University
6493 Northwestern Oklahoma State University
6541 Oklahoma Baptist University
6086 Oklahoma Christian University of Science and Arts
6543 Oklahoma City University
6571 Oklahoma Panhandle State University
6546 Oklahoma State University
6552 Oral Roberts University
6579 Phillips University
6657 Southeastern Oklahoma State University
6036 Southern Nazarene University
6673 Southwestern Oklahoma State University
6091 University of Central Oklahoma
6879 University of Oklahoma
6883 University of Tulsa

Oregon

4079 Concordia College
4300 Eastern Oregon State College
4325 George Fox College
4384 Lewis and Clark College
4387 Linfield College
4480 Marylhurst College of Lifelong Learning
4491 Mount Angel Seminary
4543 Northwest Christian College
4592 Oregon Graduate Institute of Science and Technology
4586 Oregon State University
4601 Pacific University
4610 Portland State University
4654 Reed College
4702 Southern Oregon State College
4846 University of Oregon
4847 University of Portland
4595 Warner Pacific College
4956 Western Baptist College
4968 Western Conservatory Baptist Seminary
4944 Western Evangelical Seminary
4585 Western Oregon State College
4954 Willamette University

Pennsylvania

2002 Academy of the New Church
2004 Albright College
2006 Allegheny College
2001 Allentown College of Saint Francis de Sales
2431 Alvernia College
2036 Baptist Bible College & Seminary
2039 Beaver College
2646 Bloomsburg University of Pennsylvania
2049 Bryn Mawr College

University and College Codes

2050 Bucknell University
2071 Cabrini College
2647 California University of Pennsylvania
2421 Carlow College
2074 Carnegie Mellon University
2079 Cedar Crest College
2081 Chatham College
2082 Chestnut Hill College
2648 Cheyney University of Pennsylvania
2649 Clarion University of Pennsylvania
2087 College of Misericordia
2510 Delaware Valley College of Science & Agriculture
2186 Dickinson College
2194 Drexel University
2196 Duquesne University
2650 East Stroudsburg University of Pennsylvania
2221 Eastern Baptist Theological Seminary
2220 Eastern College
2651 Edinboro University of Pennsylvania
2225 Elizabethtown College
2236 Evangelical School of Theology
2261 Franklin & Marshall College
2270 Gannon University
2273 Geneva College
2275 Gettysburg College
2280 Gratz College
2277 Grove City College
2278 Gwynedd-Mercy College
2306 Hahnemann University
2289 Haverford College
2297 Holy Family College
2320 Immaculata College
2652 Indiana University of Pennsylvania
2341 Juniata College
2353 King's College
2653 Kutztown University of Pennsylvania
2379 La Roche College
2363 La Salle University
2361 Lafayette College
2388 Lancaster Bible College
2364 Lebanon Valley College
2365 Lehigh University
2367 Lincoln University
2654 Lock Haven University of Pennsylvania
2372 Lycoming College
2655 Mansfield University of Pennsylvania
2407 Marywood College
2410 Mercyhurst College
2411 Messiah College
2656 Millersville University of Pennsylvania
2418 Moravian College
2424 Muhlenberg College
2628 Neumann College
2660 Pennsylvania State University
2676 Point Park College
2769 Robert Morris College
2763 Rosemont College
2797 Saint Francis College
2801 Saint Joseph's University
2808 Saint Vincent College
2812 Seton Hill College
2657 Shippensburg University of Pennsylvania
2658 Slippery Rock University of Pennsylvania
2820 Susquehanna University
2821 Swarthmore College
2906 Temple University
2910 Thiel College
2903 Thomas Jefferson University
2926 University of Pennsylvania
2927 University of Pittsburgh
2929 University of Scranton
2664 University of the Arts
2931 Ursinus College
2957 Villa Maria College
2959 Villanova University
2967 Washington & Jefferson College
2969 Waynesburg College
2659 West Chester University of Pennsylvania
2975 Westminster College
2976 Westminster Theological Seminary
2642 Widener University
2977 Wilkes University
2979 Wilson College
2991 York College of Pennsylvania

Rhode Island

3094 Brown University
3095 Bryant College
3693 Providence College
3724 Rhode Island College
3726 Rhode Island School of Design
3729 Roger Williams Univeristy
3759 Salve Regina University
3919 University of Rhode Island

South Carolina

5056 Benedict College
5065 Bob Jones University
5896 Central Wesleyan College
5079 Charleston Southern University
5108 Citadel, The
5109 Claflin College
5111 Clemson University
5837 Coastal Carolina University
5112 Coker College
5117 Columbia College
5116 Columbia International University
5121 Converse College
5188 Erskine College
5442 Francis Marion University
5222 Furman University
5363 Lander University
5407 Medical University of South Carolina
5418 Morris College
5493 Newberry College
5540 Presbyterian College
5618 South Carolina State University
5113 University of Charleston
University of South Carolina:
5840 Aiken
5818 Columbia
5850 Spartanburg
5863 Voorhees College
5910 Winthrop University
5912 Wofford College

South Dakota

6015 Augustana College
6042 Black Hills State University
6247 Dakota State University
6155 Dakota Wesleyan University
6279 Huron University
6416 Mount Marty College
6464 Natonal College
6487 Northern State University
6553 Oglala Lakota College
6651 Sioux Falls College
6652 South Dakota School of Mines & Technology
6653 South Dakota State University
6881 University of South Dakota

Tennessee

1028 Austin Peay State University
1058 Belmont University
1063 Bethel College
1908 Bryan College
1102 Carson-Newman College
1121 Christian Brothers University
1114 Church of God School of Theology
1146 Cumberland University
1161 David Lipscomb University
1198 East Tennessee State University
1189 Emmanuel School of Religion
1224 Fisk University
1230 Freed-Hardeman University
1345 Johnson Bible College
1371 King College
1373 Knoxville College
1394 Lambuth University
1395 Lane College
1401 Lee College
1403 Lemoyne-Owen College
1408 Lincoln Memorial University
1454 Maryville College
1458 Meharry Medical College
1511 Memphis College of Art
1459 Memphis State University
1466 Middle Tennessee State University
1469 Milligan College
1590 Oak Ridge Institute of Science & Education
1730 Rhodes College
1725 Southern College of Optometry
1803 Tennessee State University
1804 Tennessee Technology University
1818 Tennessee Temple University
1805 Tennessee Wesleyan College
1809 Trevecca Nazarene College
1812 Tusculum College
1826 Union University
1842 University of the South
University of Tennessee:
1831 Chattanooga
1843 Knoxville
1844 Martin
1850 Memphis
1871 Vanderbilt University

Texas

6001 Abilene Christian University
6861 Academy of Health Science—United States Army
6261 Ambassador Colllege
6140 Amber University
6644 Angelo State University
6039 Arlington Baptist College
6016 Austin College
6018 Austin Presbyterian Theological Seminary
6032 Baylor University
6127 Concordia Lutheran College
6144 Criswell College
6159 Dallas Baptist University
6153 Dallas Christian College
6180 DeVry Institute of Technology
6187 East Texas Baptist University
East Texas State University:
6188 Commerce
6206 Texarkana
6268 Hardin-Simmons University
6282 Houston Baptist University
6278 Howard Payne University
6280 Huston-Tillotson College
6303 Incarnate Word College
6286 Institute for Christian Studies
6319 Jarvis Christian College
6360 Lamar University
6365 LeTourneau University
6378 Lubbock Chirstian University
6402 McMurray University
6408 Midwestern State University
6550 Our Lady of the Lake University of San Antonio
6577 Paul Quinn College

University and College Codes

6569 Perkins School Theology
6580 Prairie View A. & M. University
6609 Rice University
6619 Saint Edward's University
6637 Saint Mary's University
6643 Sam Houston State University
6647 Schreiner College
6660 Southern Methodist University
6667 Southwest Texas State University
6671 Southwestern Adventist College
6668 Southwestern Baptist Theological Seminary
6674 Southwestern University
6682 Stephen F. Austin State University
6685 Sul Ross State University
6817 Tarleton State University
6838 Texas A&M International University
Texas A&M University:
6003 College Station
6849 Corpus Christi
6835 Galveston
6822 Kingsville
6820 Texas Christian University
6821 Texas College
6823 Texas Lutheran College
6824 Texas Southern University
6827 Texas Tech Universty
6828 Texas Wesleyan University
6826 Texas Woman's University
6831 Trinity University
6756 University of Central Texas
6868 University of Dallas
University of Houston:
6916 Clear Lake City
6922 Downtown
6870 University Park
6917 Victoria
6396 University of Mary Hardin-Baylor
6481 University of North Texas
6880 University of Saint Thomas
University of Texas:
6013 Arlington
6882 Austin
6588 Brownsville
6897 Dallas
6829 El Paso
6888 Houston
6914 Odessa
6570 Pan American
6919 San Antonio
6850 Tyler
6930 Wayland Baptist University
6938 West Texas A&M University

Utah

4019 Brigham Young University
4092 Southern Utah University
4920 University of Phoenis-Utah Campus
4853 University of Utah
4857 Utah State University
4941 Weber State University
4948 Westminster College of Salt Lake City

Vermont

3080 Bennington College
3765 Castleton State College
3297 College of Saint Joseph
3416 Goddard College
3418 Green Mountain College
3766 Johnson State College
3767 Lyndon State College
3509 Marlboro College
3526 Middlebury College
3669 Norwich University
3757 Saint Michael's College
3796 Southern Vermont College
3900 Trinity College
3920 University of Vermont
3946 Vermont Law School

Virginia

5017 Averett College
5063 Bluefield College
5069 Bridgewater College
5691 Christendom College
5128 Christopher Newport University
5124 Clinch Valley College
5115 College of William & Mary
5181 Eastern Mennonite University
5185 Emory and Henry College
5213 Ferrum College
5827 George Mason University
5291 Hampden-Sydney College
5292 Hampton University
5294 Hollins College
5321 Institute of Textile Technology
5392 James Madison University
5385 Liberty University
5368 Longwood College
5372 Lynchburg College
5397 Mary Baldwin College
5398 Mary Washington College
5405 Marymount University
5481 National-Louis University
5864 Norfolk State University
5126 Old Dominion University
5565 Radford University
5566 Randolph-Macon College
5135 Regent University
5571 Roanoke College
5604 Saint Paul's College
5613 Shenandoah University
5634 Sweet Briar College
5792 Troy State University, Atlantic Region
5805 Union Theological Seminary
5808 University of Richmond
5820 University of Virginia
5570 Virginia Commonwealth Univeristy
5857 Virginia Intermont College
5858 Virginia Military Institute
5859 Virginia Polytechnic Institute & State University
5860 Virginia State University
5862 Virginia Union University
5867 Virginia Wesleyan College
5887 Washington & Lee University

Washington

7030 Antioch University, Seattle
4044 Central Washington University
4301 Eastern Washington University
4292 Evergreen State College
4330 Gonzaga University
4344 Heritage College
4541 Northwest College
4597 Pacific Lutheran University
4674 Saint Martin's College
4694 Seattle Pacific University
4695 Seattle University
4067 University of Puget Sound
4854 University of Washington
4940 Walla Walla College
4705 Washington State University
4947 Western Washington University
4951 Whitman College
4953 Whitworth College

West Virginia

5005 Alderson-Broaddus College
5060 Bethany College
5064 Bluefield State College
5120 Concord College
5151 Davis and Elkins College
5211 Fairmont State College
5396 Marshall University
5608 Salem-Teikyo University
5615 Shepherd College
5419 University of Charleston
5901 West Liberty State College
5924 West Virginia Graduate College
5902 West Virginia Institute of Technology
5903 West Virginia State College
5904 West Virginia University
5905 West Virginia Wesleyan College
5906 Wheeling Jesuit College

Wisconsin

1012 Alverno College
1059 Beloit College
1100 Cardinal Stritch College
1101 Carroll College
1139 Concordia University of Wisconsin
1202 Edgewood College
1393 Lakeland College
1398 Lawrence University
1448 Marquette University
1519 Medical College of Wisconsin
1476 Milwaukee School of Engineering
1490 Mount Mary College
1550 Nashotah House
1561 Northland College
1664 Ripon College
1706 Saint Norbert College
1300 Silver Lake College
University of Wisconsin:
1913 Eau Claire
1859 Green Bay
1914 La Crosse
1846 Madison
1473 Milwaukee
1916 Oshkosh
1860 Parkside
1917 Platteville
1918 River Falls
1919 Stevens Point
1740 Stout, Menomonie
1920 Superior
1921 Whitewater
1878 Viterbo College
1513 Wisconsin Lutheran College
1934 Wisconsin School of Professional Psychology

Wyoming

4855 University of Wyoming

Commonwealth of Puerto Rico

Inter-American University of Puerto Rico:
0873 Hato Rey
0946 San German
3347 Ponce School of Medicine
0910 Pontifical University of Puerto Rico
3229 Universidad Central del Caribe
University of Puerto Rico:
0912 Mayagüez
0960 Medical Sciences
0979 Rio Piedras

Guam

0959 University of Guam

Virgin Islands

0879 University of the Virgin Islands

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